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ABSTRACT

Johnson County Community College (JCCC), in Kansas, offers formal career programs for 12 of the 20 fastest growing occupations requiring postsecondary training, and for 13 of the 30 occupations projected to be the fastest growing between 1990 and 2005. Following an introduction to general trends and data sources, this guide presents profiles of the outlook for particular careers. Employment and salary projections for the greater Kansas city area, the state of Kansas, and the nation, as well as salary and placement information for JCCC program completers (where appropriate) are provided for the following 39 occupations: accounting; administration of justice/law enforcement; automotive body repair technology; automotive technology; aviation maintenance technology; business entrepreneurship; carpentry technology; chef apprentice; civil engineering technology; commercial art; construction management; data processing; dental hygiene; drafting technology; electronics engineering technology; emergency medical science; fashion merchandising; fire science; health information technology; heating, ventilating, and air conditioning technology; hospitality management; industrial programmable controls; interior merchandising; interpreter training; marketing and management; metal fabrication; nursing; occupational therapy assistant; office automation technology; office careers; paralegal; physical therapy assistant; printing technology; radiologic technology; respiratory therapy; sales and customer relations; turf management; veterinary technology; and welding technology. The guide concludes with brief profiles of four JCCC programs for which minimal outlook data are available. (MAB)

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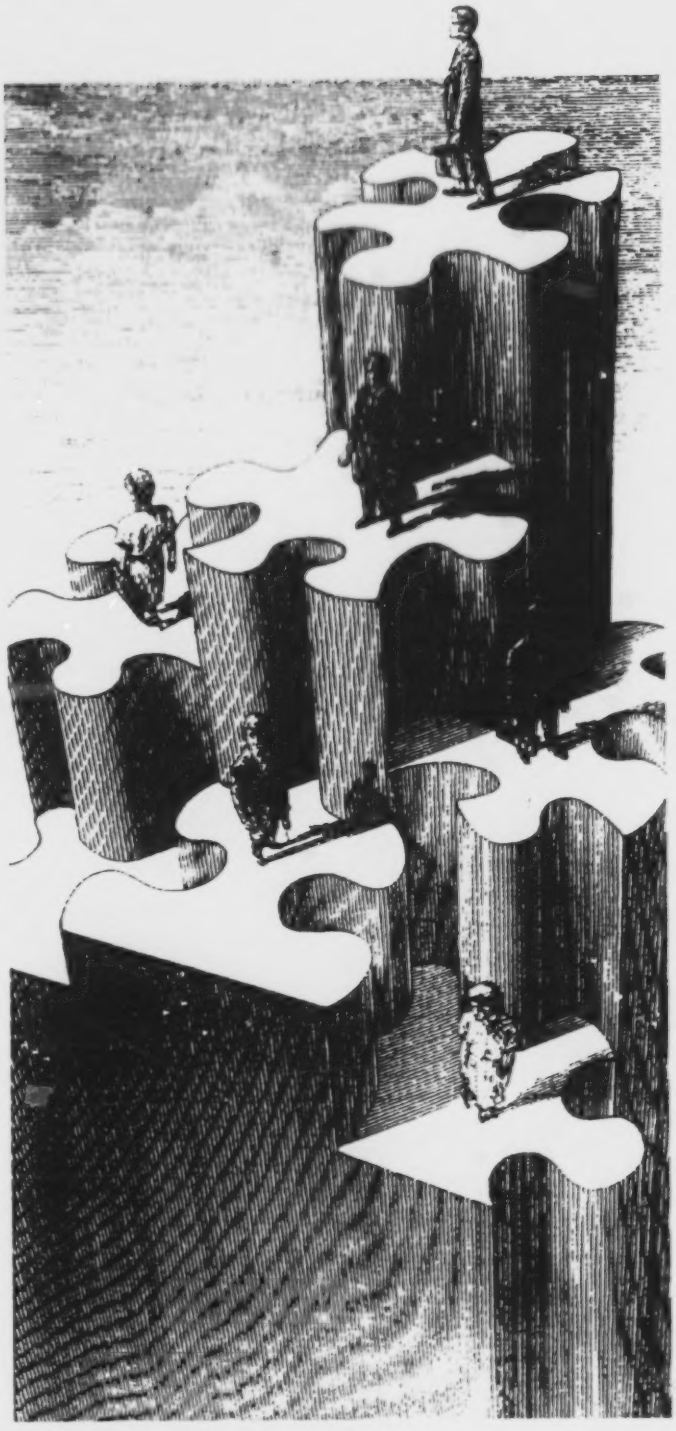
# EMPLOYMENT, SALARY AND PLACEMENT INFORMATION



## Related to Career Programs at Johnson County Community College

December 1992
Office of Institutional Research
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# *EMPLOYMENT, SALARY AND PLACEMENT INFORMATION*

# *FOR*

# *JOHNSON COUNTY COMMUNITY COLLEGE*

# *CAREER PROGRAMS*

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## TABLE OF CONTENTS


| | Page |
|---|---|
| *INTRODUCTION* | 5 |
| *List of Sources* | 6 |
| *Fastest Growing Occupations Requiring Some Postsecondary or Extensive Employer Training, Projected 1990-2005* | 7 |
| *Fastest Growing Occupations, Projected 1990-2005* | 8 |
| *Occupations With The Largest Numerical Increases, Projected 1990-2005* | 9 |
| *CAREER PROGRAM OUTLOOKS* | |
| *Accounting* | 10 |
| *Administration of Justice/Law Enforcement* | 12 |
| *Automotive Body Repair Technology* | 14 |
| *Automotive Technology* | 16 |
| *Aviation Maintenance Technology* | 18 |
| *Business Entrepreneurship* | 20 |
| *Carpentry Technology* | 78 |
| *Chef Apprentice* | 22 |
| *Civil Engineering Technology* | 24 |
| *Commercial Art* | 26 |
| *Construction Management* | 28 |
| *Data Processing* | 30 |
| *Dental Hygiene* | 32 |
| *Drafting Technology* | 34 |
| *Electronics Engineering Technology* | 36 |
| *Emergency Medical Science* | 38 |
| *Fashion Merchandising* | 40 |
| *Fire Science* | 42 |
| *Health Information Technology* | 44 |
| *HVAC Technology* | 46 |
| *Hospitality Management* | 48 |
| *Industrial Programmable Controls* | 78 |

| | Page |
|---|---|
| *Interior Merchandising* | 50 |
| *Interpreter Training* | 78 |
| *Marketing and Management* | 52 |
| *Metal Fabrication* | 54 |
| *Nursing* | 56 |
| *Occupational Therapy Assistant* | 58 |
| *Office Automation Technology* | 60 |
| *Office Careers* | 62 |
| *Paralegal* | 64 |
| *Physical Therapy Assistant* | 58 |
| *Printing Technology* | 66 |
| *Radiologic Technology* | 68 |
| *Respiratory Therapy* | 70 |
| *Sales and Customer Relations* | 72 |
| *Turf Management* | 74 |
| *Veterinary Technology* | 78 |
| *Welding Technology* | 76 |

*Building a quality work force will be the key to success for American workers as well as the nation's economy according to Lynn Martin, Secretary of Labor. Preparation for tomorrow's jobs and the challenges posed by global competitiveness, changing technology, and demographic trends will require an efficient match between workplace requirements and worker skills. Thus, the emphasis on education will continue. Projected rates of employment growth through the year 2005 are faster for occupations requiring higher levels of education. Thus, advancement opportunities will be best for those with the most education and training.*

*General Predictions*

*By the year 2005, three out of the four fastest growing occupational groups will require the highest levels of education and skill, and will make up an increasing proportion of new jobs. These occupational groups are: 1) technicians and related support occupations; 2) professional specialty occupations; and 3) executive, administrative, and managerial occupations. Many of the occupations projected to grow most rapidly between 1990 and 2005 are also among those with higher earnings.*

*Health care will continue to be one of the fastest growing industries in the economy. Employment in home health care services is projected to increase most rapidly throughout this period. Hospitals, both public and private, will continue to be the largest, but slowest growing, health care industry.*

*Business services industries also will generate many jobs. Personnel supply services, made up primarily of temporary help agencies, is the largest sector in this group and will continue to add many jobs. The computer and data processing services industry's rapid growth is expected to continue, and stems from advances in technology, world wide trends toward office and factory automation, and increases in demand from business firms, government agencies, and individuals. Due to their large size and substantial turnover, clerical occupations will offer abundant opportunities for qualified jobseekers in the years ahead.*

*Construction is the only goods-producing industry projected to grow as increases in road and bridge construction offset the slowdown in demand for new housing. The composition of manufacturing employment is expected to shift since most of the jobs that will disappear by the year 2005 are production jobs. The number of professional, technical, and managerial positions in manufacturing firms will increase, however. Especially strong growth is expected in the agricultural services industry, which includes landscape, horticulture, and farm management services.*

*Data Limitations*

*Projections of change are not unconditional predictions of the future, but are subject to a variety of influences which may cause a particular industry or occupation to change in a totally unexpected way. Consequently, readers are cautioned to utilize employment outlook information as a guide, rather than a guarantee of job opportunities in any given occupation.*

## *LIST OF SOURCES*

### *Local Data Sources*

*Johnson County Wage, Salary and Fringe Benefits Report 1992.* Johnson County Economic Research Institute in cooperation with the Kansas Department of Human Resources.

*Follow-up of Career Program Completers: Class of 1990-91.* Office of Institutional Research, Johnson County Community College. September 1992.

*Kansas City Employment Outlook: Projections to 2000.* Occupational Information Unit, Missouri Department of Labor & Industrial Relations. October 1989.

*Area Wage Survey, Kansas City, Missouri-Kansas, Metropolitan Area.* U.S. Department of Labor, Bureau of Labor Statistics. September 1991.

*Long-Term Follow-up Study of 1987-88 Career Program Completers.* Office of Institutional Research, Johnson County Community College. November 1992.

*Wage Rates in Selected Occupations: Kansas City Metro Area.* Research and Analysis Section, Missouri Division of Employment Security. July 1992.

### *State Data Sources*

*Job Openings and Training in Kansas.* Kansas Occupational Information Coordinating Committee, Division of Policy & Management Analysis. March 1990.

*Kansas Wage Survey: 1990-91 Edition.* Kansas Department of Human Resources, Labor Market Information Services. July 1991.

*1995 Kansas Occupational Outlook.* Kansas Department of Human Resources, Labor Market Information Services. August 1989.

### *National Data Sources*

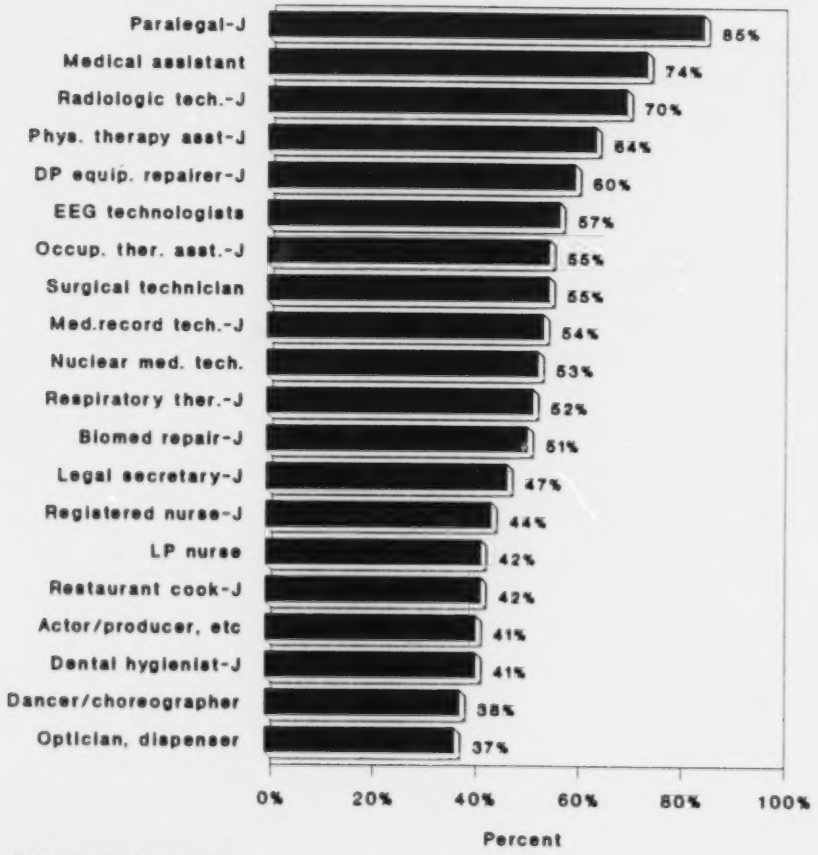
*Occupational Outlook Handbook: 1992-93 Edition.* U.S. Department of Labor, Bureau of Labor Statistics. May 1992.

*Occupational Projections and Training Data, 1992 Edition.* U.S. Department of Labor, Bureau of Labor Statistics. May 1992.

*Technical Education Resource Monitor*, July-August 1992. Atlanta Information Services, Inc., Atlanta, GA., Vol. 1, No. 4.

*As Figure 1 indicates, Johnson County Community College offers formal career programs for 12 of the 20 fastest growing occupations that require some postsecondary training. Of particular note is the strong and growing need for workers in health-related occupations which require 2 years or less of postsecondary education.*

**Figure 1**
**Fastest Growing Occupations Requiring Some College Projected 1990-2005**

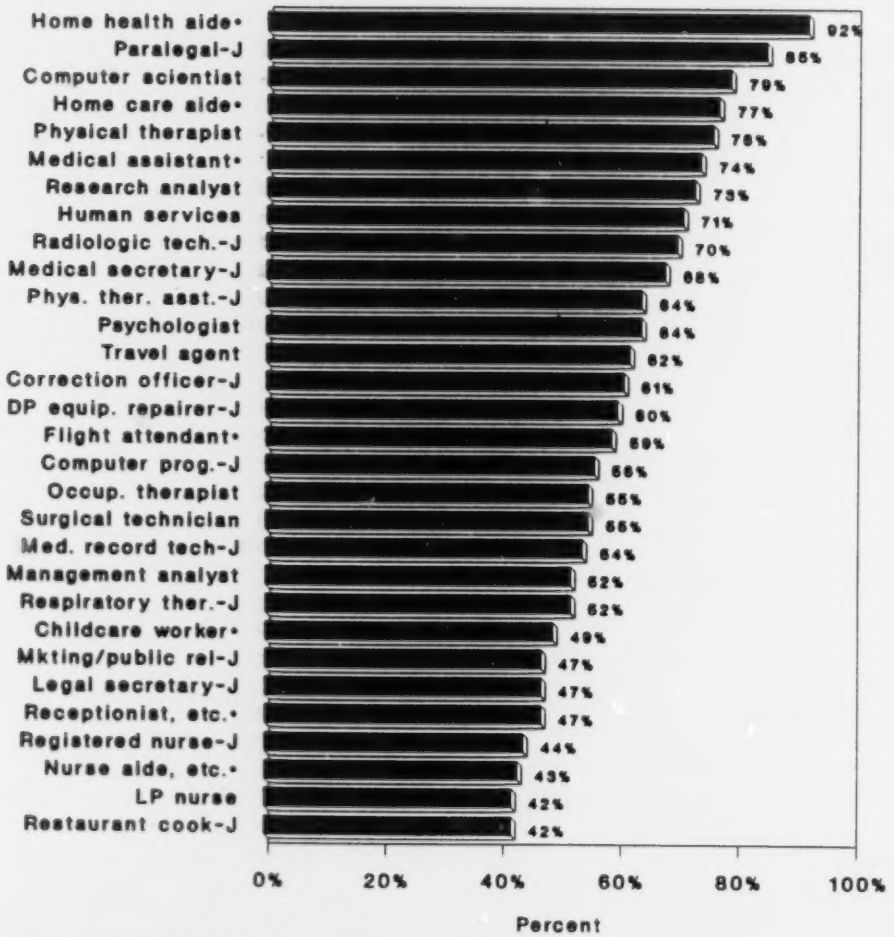



J = JCCC career program.
Source: Occupational Outlook Quarterly, US Dept. of Labor, Fall 1991.

*FASTEST GROWING OCCUPATIONS,*
*PROJECTED 1990-2005*

*As Figure 2 depicts, Johnson County Community College prepares students for 13 of the 30 occupations projected as fastest growing between 1990 and 2005. Half of the fastest growing occupations are professional and technical occupations that require 2 or more years of postsecondary education, and only 7 require little or no postsecondary education.*

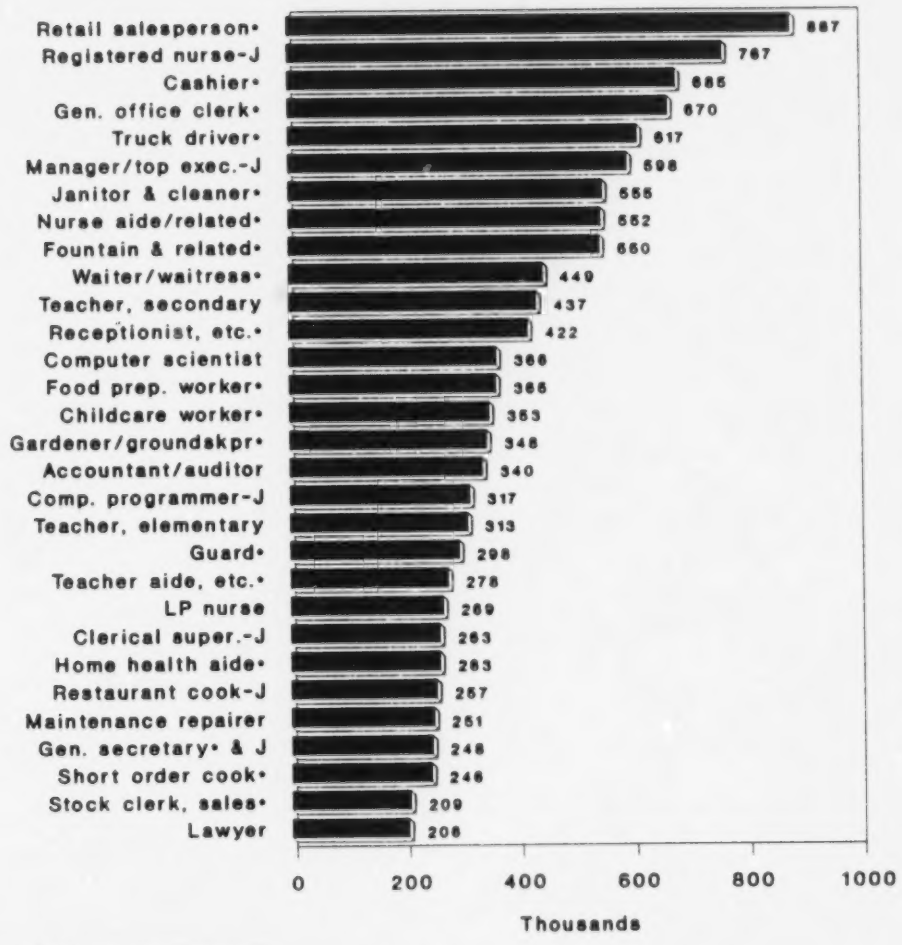
**Figure 2**
**Fastest Growing Occupations**
**Projected 1990-2005**




J • JCCC career program.
• • Jobs which require little or no formal postsecondary education.

*Among the 500 occupations for which projections were developed, 30 will account for half of total employment growth over the 1990-2005 period. Johnson County Community College offers career programs in several of the 30 occupations with the largest numerical increases projected. As Figure 3 depicts, the majority of these occupations require little or no formal postsecondary education. Of note is the fact that jobs requiring little or no postsecondary education are traditionally low paying and have an unusually high turnover rate.*

## Figure 3
## Occupations With the Largest Numerical Increases Projected 1990-2005




J • JCCC career program.
• • Jobs which require little or no formal postsecondary education.

## *ACCOUNTING*

*A decline is expected in the employment of bookkeeping, accounting, and auditing clerks through the year 2005. A growing economy will result in more financial transactions and other activities and, therefore, more demand for accounting services. However, automation of office functions is expected to continue, with resulting productivity increases. Virtually all new jobs will be created in small, rapidly growing organizations. Despite the lack of employment growth, job openings will be numerous because of the large size of the occupations.*

### *Employment Information*

*Greater Kansas City Area: Approximately 15,822 bookkeeping and accounting clerks were employed in the Greater Kansas City area in 1986, with 16,585 jobs projected by the year 2000 (+4.8%). An average of 794 annual openings are anticipated, including replacements. Bookkeeping and accounting clerks are among the 40 occupations with the highest anticipated annual growth in the Greater Kansas City area through the year 2000.*

*State: Nearly 26,500 bookkeepers and accounting clerks were employed in Kansas in 1986, with 27,290 jobs projected by 1995 (+3.0%). On average, approximately 1,200 annual openings are anticipated, including replacements.*

*National: Bookkeeping, accounting and auditing clerks held 2,276,000 jobs in 1990, with 2,143,000 jobs projected by the year 2005 (-5.8%). On average, approximately 346,000 annual openings are anticipated, including replacements.*

### *Salary Information*

*Greater Kansas City Area: A median hourly wage of $8.46 was reported for accounting clerks employed throughout the Greater Kansas City area in September 1991, with an average entry-level wage of $6.70 per hour reported in July 1992. A median wage of $7.84 to $9.02 per hour was reported in Johnson, Leavenworth, Miami and Wyandotte counties in 1991.*

*State: Bookkeeping, accounting, and auditing clerks in Kansas earned a median hourly wage of $6.81 to $7.83 in 1991, with a median entry level wage of $6.10 per hour.*

*National: Bookkeeping, accounting, and auditing clerks earned an average hourly wage of $8.46 in 1990. However, region of the country, size of city, and type and size of establishment all influence salary levels. The level of industry or technical expertise required and the complexity and uniqueness of a clerk's responsibilities may also affect earnings.*

*JCCC Career Program Completers: An hourly wage of $15.00 was reported by the 1990-91 accounting program completer responding to the January 1992 follow-up study who was working full time in a job related to accounting.*

An average hourly wage of $10.59 was reported by 1987-88 accounting program completers working full time in related jobs who responded to the 4-year follow-up study conducted in 1992.

## JCCC Placement Information

All of the accounting program completers responding to the short-term follow-up of 1990-91 JCCC career program completers were working in jobs related to accounting.

Half of the 1987-88 accounting program completers contacted in 1992 were employed in jobs related to accounting, and the other half were working in unrelated jobs.

Note: Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## *ADMINISTRATION OF JUSTICE/LAW ENFORCEMENT*

*Employment of police officers, detectives, and special agents is expected to increase about as fast as the average for all occupations through the year 2005. A more security-conscious society and growing concern about drug-related crimes should contribute to the increasing demand for police services. However, employment growth may be tempered somewhat by continuing budgetary constraints. Because of attractive salaries and benefits, the number of qualified candidates generally exceeds the number of job openings. Competition is expected to remain keen for higher paying jobs in larger police departments. Persons having college training in law enforcement should have the best opportunities.*

### *Employment Information*

*Greater Kansas City Area: A total of 4,880 workers were employed as patrol officers, detectives, supervisors, corrections officers, jailers, federal marshalls, criminal investigators, sheriffs, and other law enforcement officers in the Greater Kansas City area in 1986. Approximately 5,600 jobs are projected by the year 2000 (+14.9%), with 175 average annual job openings, including replacements, anticipated.*

*State: Over 6,800 workers were employed as patrol officers, detectives, supervisors, corrections officers, jailers, federal marshalls, criminal investigators, sheriffs, and other law enforcement officers in 1986. About 7,510 jobs are projected by 1995 (+10.3%), with 230 average annual openings anticipated, including replacements.*

*National: Approximately 886,000 jobs were attributed to law enforcement occupations in 1990, with 1,187,000 jobs projected by the year 2005 (+34.1%). An average of 68,000 annual openings are anticipated, including replacements.*

### *Salary Information*

*Greater Kansas City Area: Median 1991 hourly wages in Johnson, Leavenworth, Miami and Wyandotte counties were: dispatchers $9.03 to $10.38; police patrol officers $11.96 to $13.75; police detectives $15.83 to $18.20; police and detective supervisors $18.21 to $20.94.*

*State: Median 1991 Kansas hourly wages were: corrections officers and jailers $7.84 to $9.02 (entry-level = $7.19); dispatchers $5.91 to $6.80 (entry-level = 5.81); police patrol officers and sheriffs/deputy sheriffs $9.03 to $10.38 (entry-level = $8.72 and $7.01, respectively); police detectives $10.39 to $11.95 (entry-level wage not available); and police and detective supervisors $11.96 to $13.75 (entry-level = $10.98).*

*National: According to a 1990 survey by the International City Management Association, police officers started at an average of $10.77 per hour nationwide, and could reach an average maximum of $13.80 after about 6*

*years of service. Some officers with longer service may be eligible to receive additional "longevity pay" averaging about $1,500 a year. Earnings vary by region and the size of the police department.*

*According to a 1989 survey by the Bureau of Justice Statistics, police and detective sergeants earned wages ranging from $9.09 in jurisdictions of fewer than 2,500 people to $17.93 per hour in jurisdictions of over 1 million people. Salaries of police chiefs ranged from about $10.58 to in excess of $43.27 an hour in larger jurisdictions.*

*JCCC Program Completers: An average hourly wage of $12.18 was reported by 1990-91 police academy graduates responding to the January 1992 follow-up study who were working full time as police officers. Average hourly wages were $12.29 for male respondents and $11.27 for females. Respondents working as police officers for 1 year or less reported an average hourly wage of $11.71. Administration of justice program completers responding to the 1992 short-term follow-up study who were working full time in related jobs reported average hourly earnings of $11.80.*

*An average hourly wage of $13.25 was reported by 1987-88 administration of justice program completers working full time in related jobs who responded to the 1992 long-term follow-up study; male respondents averaged $16.00 and female respondents averaged $10.50 per hour. Police academy graduates responding to the 4-year study averaged $13.33; males averaged $13.42 and females averaged $12.76 per hour.*

*JCCC Placement Information*

*Two out of three of the 1990-91 administration of justice program completers responding to the January 1992 follow-up study were employed in jobs related to administration of justice; the remainder were pursuing additional education. Approximately 91% of the police academy graduates were employed in jobs related to their police academy training; the remainder held unrelated jobs.*

*Six out of ten of 1987-88 administration of justice program completers responding to the 1992 long-term follow-up study were working in jobs related to administration of justice and 40% held unrelated jobs. Eight out of ten police academy graduates responding to the 1992 long-term follow-up study were working in jobs related to their police academy training, and the remainder were employed in unrelated jobs.*

*Note: Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.*

## *AUTOMOTIVE BODY REPAIR TECHNOLOGY*

*Employment of automotive body repairers is expected to increase about as fast as the average for all occupations through the year 2005. New automobile designs increasingly have body parts made of steel alloys, aluminum, and plastics--materials that are more difficult to work with than the traditional steel body parts and thus requiring more training. Opportunities should be best for persons with formal training in automotive body repair and mechanics.*

*The automotive repair business is not very sensitive to changes in economic conditions, and experienced body repairers are rarely laid off. However, most employers hire fewer new workers during an economic slowdown. As a result, persons seeking to enter this occupation may face increased competition for jobs during recessions.*

*The associate degree in auto body repair is a cooperative program offered through the Johnson County Area Vocational-Technical School and Johnson County Community College.*

### *Employment Information*

*Greater Kansas City Area: Automotive body and related repairers held 1,289 jobs in 1986, with 1,414 jobs projected by the year 2000 (+9.7%). Approximately 40 average annual openings, including replacements, are anticipated.*

*State: Automotive body and related repairers held 2,640 jobs in Kansas in 1986, with 3,020 jobs projected by 1995 (+14.4%). Approximateiy 90 average annual job openings, including replacements, are anticipated.*

*National: Automotive body and related repairers held 219,000 jobs in 1990, with 267,000 jobs projected by the year 2005 (+22.1%). Approximately 123,000 average annual openings, including replacements, are anticipated.*

### *Salary Information*

*Greater Kansas City Area: Automotive body and related repairers in the Greater Kansas City area earned an average hourly wage ranging from $10.08 to $11.59 in 1991.*

*State: Automotive body and related repairers in Kansas earned an average hourly wage ranging from $10.08 to $11.59 and an average entry-level hourly wage of $5.56 in 1991.*

*National: Body repairers employed by automobile dealers in large metropolitan areas had average hourly earnings of $18.25 in 1990. Helpers and trainees usually earned from 30% to 60% of the earnings of skilled workers. The majority of body repairers employed by automotive dealers and repair shops are paid on an incentive basis. Under this method, body repairers are paid a predetermined amount for various tasks, and*

*earnings depend on the amount of work assigned to the repairer and how fast it is completed. Helpers and trainees usually receive an hourly rate until they are skilled enough to be paid on an incentive basis.*

*JCCC Salary and Placement Information*

*This program has not been offered at JCCC for a sufficient length of time to provide data from follow-up studies of JCCC career program completers.*

## AUTOMOTIVE TECHNOLOGY

*Job opportunities in automotive mechanics are expected to be plentiful to the year 2005 for persons who complete automotive training programs. Persons whose programs include some basic electronics should have the best opportunities. The growing complexity of automotive technology, such as the use of electronic and emissions control equipment, increasingly necessitates that cars be serviced by skilled workers, contributing to the growth in demand for highly trained mechanics. Those entering the occupation may expect steady work because changes in economic conditions have little effect on the automotive repair business. During a downturn, however, some employers may be more reluctant to hire inexperienced workers.*

### Employment Information

*Greater Kansas City Area: Automotive mechanics held 5,390 jobs in the Greater Kansas City area in 1986, with 6,260 jobs projected by the year 2000 (+16.1%). About 205 average annual openings, including replacements, are anticipated. Auto mechanics are listed among the occupations with the highest anticipated annual growth in the Greater Kansas City area through the year 2000.*

*State: Over 8,600 automotive mechanics were employed in Kansas in 1986. About 9,220 jobs are projected by 1995 (+6.8%), with 370 average annual openings, including replacements, anticipated.*

*National: Automotive mechanics held over 757,000 jobs in 1990, with 923,000 jobs projected by the year 2005 (+21.9%). Approximately 123,000 average annual openings, including replacements, are anticipated.*

### Salary Information

*Greater Kansas City Area: Motor vehicle mechanics in the Greater Kansas City earned a median hourly wage of $16.06 in September 1991, with an average entry-level wage of $7.45 in July 1992. Automotive mechanics in Johnson, Leavenworth, Miami and Wyandotte counties earned a median hourly wage of $11.96 to $13.75 in 1991.*

*State: Auto mechanics in Kansas earned a median range of $9.03 to $10.38 per hour in 1991. Entry-level auto mechanics earned a median hourly wage of $7.00.*

*National: Highly skilled automotive mechanics employed by automobile dealers in 18 metropolitan areas had average hourly earnings of $17.40 in 1988. Less skilled mechanics who perform routine service and make minor repairs had estimated average hourly earnings of $12.40; semi-skilled mechanics, $8.70.*

*JCCC Program Completers: An average hourly wage of $8.19 was reported by 1990-91 JCCC automotive technology program completers responding to*

*the January 1992 follow-up study who were working full time in jobs related to automotive technology.*

*An average hourly wage of $14.98 was reported by 1987-88 JCCC automotive technology program completers working full time in related jobs who responded to the 4-year follow-up study conducted in 1992.*

*JCCC Placement Information*

*Nearly 77% of the automotive technology program completers responding to the 1992 short-term follow-up study and 67% of those responding to the 4-year study were working in jobs related to automotive technology. The remainder either were employed in unrelated jobs or pursuing additional education.*

*Note: Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.*

## *AVIATION MAINTENANCE TECHNOLOGY*

*The number of aircraft mechanics is expected to increase about as fast as the average for all occupations through the year 2005. Overall, aircraft mechanics--particularly those with work experience--are expected to have excellent job opportunities since the number of job openings is expected to exceed the supply of qualified applicants. Growth in demand for the services of aircraft mechanics coupled with an expected large number of retirements should provide many job openings. However, declines in air travel during the current recession have forced airlines to curtail the number of flights, which has resulted in less aircraft maintenance and, consequently, layoffs for aircraft mechanics.*

*Job opportunities are likely to be best in general aviation. Since wages in small companies tend to be relatively low, there generally are fewer applicants for these jobs than for airline jobs. Mechanics who keep abreast of technological advances in electronics, composite materials, and other areas will be in greatest demand.*

### *Employment Information*

*Greater Kansas City Area: Aircraft mechanics and engine specialists held 1,855 jobs in the Greater Kansas City area in 1986. Approximately 2,020 jobs are projected through the year 2000 (+8.9%), with an average of 103 annual openings, including replacements, anticipated.*

*State: Approximately 1,990 aircraft mechanics and engine specialists were employed in Kansas in 1986. About 2,220 jobs are projected by 1995 (+11.6%), with 30 average annual openings, including replacements, anticipated.*

*National: Aircraft mechanics and engine specialists held about 122,000 jobs nationwide in 1990, with approximately 151,000 jobs anticipated by the year 2005 (+24.1%). Approximately 8,000 average annual openings, including replacements, are anticipated.*

### *Salary Information*

*State: The 1991 median range earned by aircraft mechanics in Kansas was $21,611 to $24,856.*

*National: In 1990, the median annual salary of aircraft mechanics was about $30,000. Mechanics who worked on jets generally earned more than those working on other aircraft, and earnings of airline mechanics generally were higher than mechanics working for other employers. Beginning aircraft mechanics employed by the airlines earned from $20,800 to $31,200 in 1990, and earnings of experienced mechanics ranged from $31,200 to $52,000. Mechanics employed by the Federal Government averaged $32,400 in 1990.*

*JCCC Program Completers:* *Salaries of respondents to recent short-term follow-up studies of aviation maintenance technology completers varied considerably, from $10,400 to $31,200 per year. An average annual wage of $38,480 was reported by aviation maintenance program completers who responded to the 1992 long-term follow-up study of 1987-88 completers.*

*Caution should be exercised in interpreting these data due to the small number of respondents from this program.*

## JCCC Placement Information

*Of the JCCC aviation maintenance technology completers responding to recent follow-up studies, 71% were employed in jobs related to aviation maintenance and the remainder were employed in unrelated jobs. However, because aviation maintenance technology is a program offered in cooperation with Maple Woods Community College, the data on JCCC aviation maintenance technology completers are limited and thus may not accurately reflect placement possibilities in this career field.*

*Note:* *Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.*

## *CARPENTRY TECHNOLOGY*

*Employment of carpenters is expected to increase about as fast as the average for all occupations through the year 2005. Employment growth may not be as fast as in the past because of expected productivity gains resulting from the increasing use of prefabricated components that can be installed much more quickly than by traditional construction methods. In addition, light, cordless pneumatic and combustion tools such as nailers and drills as well as sanders with electronic speed controls reduce fatigue and make workers more efficient.*

*The total number of job openings for carpenters each year usually is greater than for other craft occupations because the occupation is large and turnover is high. However, during economic downturns, the number of job openings for carpenters is reduced. People entering the occupation should expect to experience periods of unemployment due to the short-term nature of many construction projects and the cyclical nature of the construction industry.*

*The associate degree in carpentry is a cooperative program offered through the Johnson County Area Vocational-Technical School and Johnson County Community College.*

### *Employment Information*

*Greater Kansas City Area: Carpenters held 6,292 jobs in the Greater Kansas City Area in 1986, with 7,928 jobs projected by the year 2000 (+26%). Approximately 359 average annual openings, including replacements, are anticipated.*

*State: Carpenters held 5,660 jobs in Kansas in 1986, with 6,210 jobs projected by 1995 (+9.7%). Approximately 300 average annual openings, including replacements, are anticipated.*

*National: Carpenters held 1,057,000 jobs nationwide in 1990, with 1,209,000 jobs projected by the year 2005 (+14.4%). Approximately 186,000 average annual openings, including replacements, are anticipated.*

### *Salary Information*

*Johnson County: Carpenters in Johnson County earned an average hourly wage ranging from $11.69 to $13.44 in 1991.*

*Greater Kansas City Area: Carpenters earned an average entry-level hourly wage of $8.00 in 1992. In Johnson, Leavenworth and Wyandotte counties, carpenters earned an average hourly wage ranging from $13.56 to $15.59 in 1991.*

*State: Carpenters in Kansas earned an average hourly wage ranging from $10.53 to $12.11 in 1991, and the average entry-level hourly wage was $8.19.*

*National: The median hourly wage of carpenters who were not self-employed was $10.30 in 1990; the middle 50% earned between $7.60 and $14.28. The lowest 10% earned less than $5.95 and the top 10% earned more than $18.48 per hour.*

*Earnings may be reduced on occasion because carpenters lose work time in bad weather and when jobs are unavailable. Maintenance carpenters, who generally have more steady employment, averaged $15.01 an hour in 1990, according to a survey of selected metropolitan areas.*

*JCCC Salary and Employment Information*

*This program has not been offered at JCCC for a sufficient length of time to provide data from follow-up studies of JCCC career program completers.*

## *CHEF APPRENTICE*

*Employment of chefs, cooks, and other kitchen workers are expected to be plentiful through the year 2005. As the average age of the population increases, demand will grow for restaurants that offer table service and more varied menus--which will require highly skilled cooks and chefs. The popularity of fresh baked breads and pastries in fine dining establishments should insure continued rapid growth in the employment of bakers.*

*Certification provides valuable formal recognition of the skills of a chef or cook. The chef apprenticeship program at JCCC is accredited by the American Culinary Federation Educational Institute and the U.S. Department of Labor. Students must successfully complete all entry-level examinations as prescribed by the Apprenticeship Committee of the American Culinary Federation Education Institute.*

### *Employment Information*

*Greater Kansas City Area: Approximately 5,180 restaurant cooks were employed in the Greater Kansas City area in 1986, and 7,116 jobs are anticipated through the year 2000 (+37.4%). About 443 average annual openings are anticipated, including replacements. Restaurant cooks are on both the list of occupations with the highest annual job openings and occupations with highest annual growth in the Greater Kansas City area through the year 2000.*

*State: Approximately 5,320 workers were employed as restaurant cooks in Kansas in 1986. About 7,230 jobs are projected for 1995 (+35.9%), with 580 average annual openings, including replacements, anticipated.*

*National: Restaurant cooks held approximately 615,000 jobs in 1990, with 872,000 jobs projected by the year 2005 (+41.8%). Approximately 225,000 average annual openings, including replacements, are anticipated. Restaurant cooks are listed among both the fastest growing, and occupations with the largest projected numerical increases to the year 2005.*

### *Salary Information*

*Greater Kansas City Area: Salaries for chefs ranged from $13,000 to $58,000 in the Greater Kansas City area in 1991 depending on the place of employment and the nature of the work. For example, employers reported salaries for banquet chefs ranging from $23,000 to $28,000 at some locations, and from $29,000 to $42,000 at others.*

*Salaries for executive chefs ranged from $16,000 to $20,000 at some locations, and from $38,600 to $58,000 at others. Salaries for pastry chefs ranged from $20,000 to $24,000 at some locations, and from $32,000 to $42,000 at others. Coffee shop chef salaries ranged from $13,000 to $19,200 at some locations, and from $25,000 to $38,000 at others. Source: Hotel and Motel Association of Greater Kansas City.*

*State: Restaurant cooks in Kansas earned a median wage of $9,256 to $10,650 in 1991. Median entry-level wage was below $9,000.*

*National: Wages are generally highest in elegant restaurants and hotels, and many executive chefs earned over $40,000 annually in 1990. According to a 1990 survey conducted by the National Restaurant Association, median annual earnings of cooks were $13,520, and bread and pastry bakers earned a median salary of $13,000.*

*JCCC Career Program Completers: An average annual salary of $26,624 was reported by the 1990-91 JCCC chef apprentice program completers responding to the January 1992 follow-up study who were working full time in jobs related to this career program.*

*An average annual salary of $21,008 was reported by the 1987-88 JCCC chef apprentice program completers working full time in related jobs who responded to the 4-year follow-up study conducted in 1992.*

## *JCCC Placement Information*

*All of the chef apprentice program completers responding to recent follow-up studies were working in related jobs.*

*Note: Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.*

## *CIVIL ENGINEERING TECHNOLOGY*

*Well-qualified engineering technicians should experience very good employment opportunities through the year 2005. Employment is expected to increase faster than the average for all occupations due to anticipated increases in research and development expenditures and expected continued rapid growth in the output of technical products. Employment of engineering technicians is influenced by local and national economic conditions, however, and civil engineering technicians usually experience greater cyclical fluctuations than other types of engineering technicians. Thus, the job market for civil engineering technicians may be less favorable during recessionary times.*

*Although it is possible to qualify for engineering technician jobs through many combinations of work experience and education, most employers prefer to hire someone who will require less on-the-job training and supervision.*

### *Employment Information*

*Greater Kansas City Area: Civil engineering technicians held 744 jobs in the Greater Kansas City area in 1986. Approximately 886 jobs are projected through the year 2000 (+19.1%), with 32 average annual openings, including replacements, anticipated.*

*State: Approximately 730 workers held civil engineering technician jobs in Kansas in 1986. Nearly 850 jobs are projected by 1995 (+17.8%), with 30 average annual openings, including replacements, anticipated.*

*National: Engineering technicians held approximately 755,000 jobs in 1990. Over 964,000 jobs are projected by the year 2005 (+27.8%), with 98,000 average annual openings, including replacements, anticipated.*

### *Salary Information*

*Greater Kansas City Area: Civil engineering technicians and technologists in Johnson, Leavenworth, Miami, and Wyandotte counties earned a median hourly wage of $11.96 to $13.75 in 1991. The lowest reported wage was below $6.80, and the highest was above $20.95.*

*State: In 1991 Kansas civil engineering technicians and technologists earned a median hourly wage of $10.39 to $11.95. Median entry-level wage was $7.00.*

*National: In 1991, engineering technicians in private industry earned an average hourly wage of $9.81 at the most junior level. Engineering technicians with more experience and the ability to work with little supervision averaged $13.61 per hour, and those in supervisory or senior level positions averaged $18.65 per hour. In the Federal Government, engineering*

*technicians could start at between $6.50 and $7.29 per hour in 1991, depending on their education and experience.*

*JCCC Career Program Completers: Respondents to the January 1992 follow-up of 1990-91 completers who completed the civil engineering technology program and were working full-time in a related job reported average hourly wages of $10.50. Male respondents earned an average of $13.00, and females reported an average of $8.00 per hour.*

*JCCC Placement Information*

*All of the 1992 respondents to the 1990-91 follow-up study who had completed the civil engineering technology program were working in related jobs.*

*Note: Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.*

## *COMMERCIAL ART*

*Employment of visual artists overall is expected to grow faster than average for all occupations through the year 2005. Demand for the work of graphic artists will be strong as producers of information, goods, and services put even more emphasis on visual appeal in product design, advertising, marketing, and television.*

*Despite expected faster than average employment growth, the supply of those seeking entry to this field will continue to exceed requirements. Nonetheless, graphic arts studios, clients, and galleries alike are always on the lookout for artists who display outstanding talent, creativity, and style. Talented artists who have developed a mastery of artistic techniques and skills should continue to be in great demand.*

### *Employment Information*

*Greater Kansas City Area: Artists and commercial artists are among the fastest growing occupations in the Greater Kansas City area through the year 2000. Artists and related workers held 2,727 jobs in the Greater Kansas City area in 1986. Approximately 3,382 jobs are projected by the year 2000 (+24.0%), with 151 average annual openings anticipated, including replacements.*

*State: Over 2,600 artists and related workers were employed in Kansas in 1986. Approximately 3,350 jobs are projected by 1995 (+27.4%), with 220 average annual openings, including replacements, anticipated.*

*National: About 230,000 artists and commercial artists were employed nationwide in 1990, with 303,000 jobs projected by the year 2005 (+31.7%). Approximately 41,000 average annual openings, including replacements, are anticipated.*

### *Salary Information*

*Greater Kansas City Area: Artists and related workers in Johnson, Leavenworth, Miami and Wyandotte County earned a median salary ranging from $18,782 to 21,590 in 1991.*

*State: Artists and related workers in Kansas earned a median salary ranging from $16,307 to $18,762 in 1991. Median entry-level wage was $12,500.*

*National: Median earnings for salaried visual artists who usually work full time were about $21,400 a year in 1990. The middle 50% earned between $15,700 and $19,600 a year. The top 10% earned more than $36,600, and the bottom 10% earned less than $12,500.*

*JCCC Career Program Completers: An average annual salary of $17,555 was reported by 1990-91 JCCC commercial art program completers responding to the January 1992 follow-up study who were working full time*

*in jobs related to commercial art. Males were earning an average salary of $19,386 and females averaged $15,954 per year. The majority had been working in their current job for one year or less.*

*An average annual salary of $23,878 was reported by 1987-88 JCCC commercial art program completers working full time in related jobs who responded to the 4-year follow-up study conducted in 1992. Males averaged $21,798, and females averaged $26,478 per year.*

*JCCC Placement Information*

*Approximately 76% of the 1990-91 commercial art program completers responding to the January 1992 follow-up study were working in jobs related to commercial art; the remainder were either working in unrelated jobs, pursuing additional education, or out of the labor force. Only 3% were unemployed and looking for work at that time.*

*Nearly 86% of 1987-88 commercial art program completers contacted in 1992 were employed in jobs related to commercial art; 7% were employed in unrelated jobs, and 7% were out of the labor force.*

*Note: Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.*

## *CONSTRUCTION MANAGEMENT*

*Employment of construction contractors and managers is expected to increase faster than the average for all occupations through the year 2005. Increased spending on the nation's infrastructure--highways, bridges, dams, schools, subways, airports, water and sewage systems, and electric power generation and transmission facilities--will be the primary stimulus to the demand for construction contractors and managers. In addition to growth in the level of construction activity, the increasing complexity of construction projects will lead to more jobs being created.*

*In 1990, over 200 two-year colleges offered construction management or construction technology programs, and prospects are expected to be particularly favorable for experienced construction managers with a bachelor's degree in construction science with emphasis on construction management.*

### *Employment Information*

*Greater Kansas City Area: Over 2,380 first line construction supervisors were employed in the Greater Kansas City area in 1986, with 2,872 jobs projected by the year 2000 (+20.47%). Approximately 124 average annual openings, including replacements, are anticipated.*

*State: Nearly 1,370 construction managers were employed in Kansas in 1986, with 1,530 jobs projected by 1995 (+11.7%). Approximately 80 average annual openings, including replacements, are anticipated.*

*National: Over 183,000 construction managers were employed nationwide in 1990, with 243,000 jobs projected by the year 2005 (+32.9%). Approximately 20,000 average annual openings, including replacements, are anticipated.*

### *Salary Information*

*Johnson County: Construction managers in Johnson County earned an average annual salary ranging from $38,355 to $44,117 in 1992.*

*Greater Kansas City Area: Construction managers in Johnson, Leavenworth, Miami and Wyandotte counties combined earned a median wage ranging from $37,877 to $43,555 in 1991.*

*State: Construction managers in Kansas earned a median wage ranging from $32,926 to $37,856 in 1991. Median entry-level hourly wage was $26,000.*

*National: Earnings of salaried construction managers and incomes of self-employed contractors vary depending upon the size and nature of the construction project, its geographic location, and economic conditions. Based on limited information, starting salaries of construction managers in 1990 were about $28,000; annual earnings of most experienced managers ranged from $35,000 to $100,000.*

*The income of self-employed contractors varies even more widely than that of salaried managers. The failure rate of small, newly formed construction firms is higher than that of other newly established small businesses.*

## JCCC Salary and Placement Information

*This program has not been offered at JCCC for a sufficient length of time to provide data from follow-up studies of JCCC career program completers.*

## *DATA PROCESSING*

*Employment of programmers is expected to grow much faster than the average for all occupations through the year 2005 as computer usage expands. Employment, however, is not expected to grow as rapidly as in the past as improved software and programming techniques, including CASE, simplify or eliminate some programming tasks. Opportunities will exist throughout the economy, but jobs for both systems and applications programmers should be particularly plentiful in data processing service firms, software houses, and computer consulting businesses.*

*Increasingly, the level of education and quality of training that employers seek have been rising due to the growth in the number of qualified applicants and the increasing complexity of some programming tasks. Graduates of 2-year programs in data processing and people with less than a 2-year degree or its equivalent in work experience are facing especially strong competition for programming jobs. Some employers promote workers such as computer operators who have taken courses in programming to programmer jobs because of their particular work experience.*

### *Employment Information*

*Greater Kansas City Area: Computer and peripheral equipment operators held 2,780 jobs in the Greater Kansas City area in 1986. Approximately 3,798 jobs are projected through the year 2000 (+36.6%), with 115 average annual job openings anticipated, including replacements. Computer programmers and programmer aides held 3,899 jobs in 1986. Approximately 4,704 jobs are projected by the year 2000 (+20.6%), with 87 average annual openings anticipated, including replacements.*

*State: A total of 3,270 computer and peripheral equipment operators were employed in Kansas in 1986. Approximately 3,980 jobs are projected by 1995 (+22.0%), with 110 average annual openings anticipated. Computer programmers held 2,350 jobs in Kansas in 1986. Nearly 2,700 jobs are projected by 1995 (+14.0%), with 40 average annual openings anticipated, including replacements. Computer programmer aides held 570 jobs in 1986, with 660 jobs projected by 1995 (+15.8%).*

*National: Computer and peripheral equipment operators held about 320,000 jobs in 1990, with 361,000 jobs projected through the year 2005 (+13%). Approximately 56,000 average annual openings, including replacements, are anticipated. Computer programmers held 565,000 jobs in 1990, with 882,000 jobs projected through the year 2005 (+56.1%). Approximately 89,000 average annual openings, including replacements, are anticipated. Computer programmers are listed among both the fastest growing, and occupations with the largest projected numerical increases to the year 2005.*

### *Salary Information*

*Greater Kansas City Area: Computer programmers I earned a median annual salary of $22,594, and median salary for all programmers was*

*$32,000 in September 1991. Median salary for programmers in Johnson, Leavenworth, Miami and Wyandotte Counties ranged from $28,621 to $32,906 in 1991. The average entry-level wage for computer programs in the Greater Kansas City area was $28,080 in July 1992. Computer programmer aides earned between $18,782 and $21,590 on the average, and computer operators earned a median salary of $16,307 to $18,762. Median annual salary for computer operators throughout the Greater Kansas City area was $24,986 in September 1991.*

*State: The 1991 median annual wages in Kansas ranged from $16,307 to $18,762 for computer operators and programmer aides; and $28,621 to $32,906 for programmers. Entry-level programmers in Kansas earned an average annual wage of $24,000, entry-level programmer aides earned $17,555, and entry-level computer operators earned $13,790 in 1991.*

*National: Median earnings of programmers who worked full time in 1990 were about $34,000 a year. The middle 50% earned between $25,700 and $42,300 annually. The lowest 10% earned less than $19,000, and the highest 10% earned more than $52,100. Programmers in the West and Northeast earned somewhat more than those working in the South and Midwest. In the federal government, the entrance salary for programmers with a college degree or qualifying experience was about $17,000 a year in 1991; for those with a superior academic record, $21,000.*

*JCCC Career Program Completers: An average annual salary of $26,832 was reported by 1990-91 JCCC data processing program completers responding to the January 1992 follow-up study who were working full time in jobs related to data processing. Males reported an average annual salary of $28,766 and females reported average earnings of $25,480 per year. Respondents employed in their current full time related job one year or less reported average annual earnings of $23,629.*

*An average annual salary of $34,923 was reported by 1987-88 JCCC data processing program completers working full time in related jobs who responded to the 4-year follow-up study conducted in 1992. Male completers responding to the study reported average earnings of $31,346, and female respondents reported average earnings of $38,480 per year.*

*JCCC Placement Information*

*Over 79% of 1990-91 data processing program completers responding to the January 1992 follow-up study were working in jobs related to data processing; less than 4% were unemployed and looking for work.*

*All 1987-88 data processing program completers contacted in 1992 were employed in related jobs.*

*Note: Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.*

## *DENTAL HYGIENE*

*Employment of dental hygienists is expected to grow much faster than the average for all occupations through the year 2005 in response to increasing demand for dental care. Demand will be stimulated by population growth, greater retention of natural teeth by middle-aged and elderly people, rising real incomes, and greater availability of dental insurance.*

*Enrollments in dental hygiene programs declined during the 1980's, reducing the number of new graduates entering the field. Unless the number increases sharply, opportunities are expected to remain very good. Completion of an associate degree program is sufficient for practice in a private dental office. A bachelor's or master's degree is usually required for positions that involve research, teaching, or clinical practice in public or school health programs.*

### *Employment Information*

*Greater Kansas City Area: Dental hygienists held 445 jobs in the Greater Kansas City area in 1986. Approximately 586 jobs are projected through the year 2000 (+31.7%), with 12 average annual openings, including replacements, anticipated.*

*State: Approximately 700 dental hygienists held jobs in Kansas in 1986, with 760 jobs projected by 1995 (+10.0%). About 10 average annual openings, including replacements, are anticipated.*

*National: Dental hygienists held about 97,000 jobs in 1990, with 137,000 jobs projected by the year 2005 (+40.9%). Approximately 13,000 average annual openings, including replacements, are anticipated. Dental hygienists are listed among the fastest growing occupations projected for the years of 1990 to 2005 which require some postsecondary training or extensive employer training.*

### *Salary Information*

*National: According to the American Dental Association, the average annual salary for dental hygienists was $36,400 in 1989. The average starting salary was $31,616.*

*JCCC Career Program Completers: An average annual salary of $35,610 was reported by 1990-91 JCCC dental hygiene program completers responding to the January 1992 follow-up study who were working full time in jobs related to dental hygiene.*

*An average annual salary of $36,982 was reported by 1987-88 JCCC dental hygiene program completers working full time in related jobs who responded to the 4-year follow-up study conducted in 1992.*

*JCCC Placement Information*

*All of the dental hygiene program completers responding to the 1992 short- and long-term follow-up studies were working in jobs related to dental hygiene.*

*Note: Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.*

## *DRAFTING TECHNOLOGY*

*Employment of drafters is expected to grow more slowly than the average for all occupations through the year 2005. Industrial growth and the increasingly complex design problems associated with new products and processes will greatly increase the demand for drafting services. However, greater use of CAD equipment--which increases drafters' productivity--is expected to offset some of this growth in demand. Drafters are highly concentrated in industries that are sensitive to cyclical swings in the economy, such as engineering and architectural services and durable goods manufacturing. During recessions, when fewer buildings are designed, drafters may be laid off.*

*Employers prefer applicants who have post-high school training in technical institutes, junior and community colleges, or extension divisions of universities. Employers are most interested in applicants who have well-developed drafting and mechanical drawing skills, a solid background in computer-aided design techniques, and courses in mathematics, science, and engineering technology.*

### *Employment Information*

*Greater Kansas City Area: Drafters held 2,746 jobs in the Greater Kansas City area in 1986. Approximately 3,266 jobs are projected through the year 2000 (+18.9%), with 98 average annual openings, including replacements, anticipated.*

*State: Approximately 2,600 drafters were employed in Kansas in 1986, with 2,960 jobs projected by 1995 (+13.8%). Approximately 60 average annual openings, including replacements, are anticipated. Estimators and drafters in utilities held 50 jobs in 1986, with 60 positions anticipated by 1995 (+20.0%).*

*National: Drafters held about 326,000 jobs in 1990, with 370,000 jobs projected by the year 2005 (+13.4%). Females held 19% of the drafter positions in 1990.*

### *Salary Information*

*Greater Kansas City Area: Hourly entry-level wages for drafters in the Greater Kansas City area ranged from $6.00 to $14.00 in July 1992. The median hourly wage in Johnson, Leavenworth, Miami and Wyandotte counties ranged from $11.96 to $13.75 in 1991. The lowest hourly wage reported was below $5.12 and the highest was above $20.00 per hour.*

*State: Drafters in Kansas earned a median hourly wage ranging from $10.39 to $11.95 in 1991. Median entry-level wage was $7.00 per hour.*

*National: Median hourly earnings of drafters who worked year round, full time were about $12.45 in 1990. The middle 50% earned between $9.28 and $16.11 an hour; the top 10% earned more than $20.00 an hour and the*

bottom 10% earned less than $7.40. Senior drafters averaged about $17.40 an hour.

JCCC Career Program Completers: An average hourly wage of $9.42 was reported by respondents to the follow-up of 1990-91 JCCC drafting program completers conducted in January 1992. Females reported average hourly wages of $10.00, and males averaged $9.33.

An average hourly wage of $15.88 was reported by 1987-88 JCCC drafting program completers working full time in related jobs who responded to the 4-year follow-up study conducted in 1992.

## JCCC Placement Information

Eight out of ten respondents to the follow-up of 1990-91 drafting program completers were working in jobs related to drafting; the balance were employed in an unrelated job.

Of the 1987-88 drafting program completers contacted in 1992, 80% were employed in jobs related to drafting and 20% were unemployed and looking for work.

Note: Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## *ELECTRONICS ENGINEERING TECHNOLOGY*

*Well-qualified engineering technicians should experience very good employment opportunities through the year 2005. Employment is expected to increase faster than the average for all occupations due to expected continued rapid growth in the output of technical products. However, like engineers, employment of engineering technicians is influenced by local and national economic conditions. The employment outlook also varies with the area of specialization and industry. Technicians whose jobs are defense related may be laid off in times of defense cutbacks.*

### *Employment Information*

*Greater Kansas City Area: Electrical and electronics technicians held 1,859 jobs in the Greater Kansas City area in 1986. Approximately 2,673 jobs are projected through the year 2000 (+43.8), with 88 average annual openings, including replacements, anticipated.*

*State: Approximately 2,460 electrical and electronics technicians were employed in Kansas in 1986. Over 3,100 jobs are anticipated by 1995 (+26.8%). About 110 average annual openings, including replacements, are anticipated.*

*National: Electrical and electronics technicians held about 363,000 jobs in 1990, with 488,000 jobs projected by the year 2005 (+34.4%). Approximately 44,000 average annual openings, including replacements, are anticipated.*

### *Salary Information*

*Greater Kansas City Area: Electronics technicians in the Greater Kansas City area earned a median hourly wage of $17.06 in September 1991, with an average entry-level wage of $9.00 in July 1992. Median wage for electrical and electronic engineering technicians and technologists working in Johnson, Leavenworth, Miami and Wyandotte counties ranged from $9.03 to $10.38 according to a 1991 study conducted by the State of Kansas. The lowest reported wage was below $6.80, and the highest was above $20.00 per hour.*

*State: Electrical and electronic engineering technicians in Kansas earned a median hourly wage ranging from $11.96 to $13.75 in 1991. Median entry-level wage was $6.50 per hour.*

*National: In 1991, engineering technicians in private industry earned an average of $9.81 per hour at the most junior level. Engineering technicians with more experience and the ability to work with little supervision averaged $13.61, and those in supervisory or senior level positions averaged $18.65 per hour. Although electronics technicians in the federal government earned an average hourly wage of $18.52 in 1991, engineering technicians were offered a starting salary of between $6.50 and $8.16 per hour, depending on their education and experience.*

*JCCC Career Program Completers:* *An average hourly wage of $16.28 was reported by 1990-91 electronics engineering technology program completers; $9.99 by computer systems technology completers, and $10.50 by biomedical equipment technology completers responding to the January 1992 follow-up study who were working full time in related jobs.*

*An average hourly wage of $17.15 was reported by 1987-88 JCCC electronics engineering program completers, $13.35 by computer systems technology completers, and $12.75 by biomedical equipment technology completers working full time in jobs related to their JCCC career program who responded to the 4-year follow-up study conducted in 1992.*

*JCCC Placement Information*

*Approximately 63% of the 1990-91 electronics engineering technology program completers, 60% of the computer systems technology completers, and all of the biomedical equipment technology completers responding to the January 1992 follow-up study were working in jobs related to their JCCC course of study. The remainder were employed in unrelated jobs or pursuing additional education except for one computer systems technology completer who was unemployed and looking for work.*

*Fully 80% of the 1987-88 electronics engineering technology program completers, 71% of the computer systems technology completers, and 75% of the biomedical equipment technology completers contacted in 1992 were employed in jobs related to their JCCC career program. The remainder were working in unrelated jobs or pursuing additional education.*

*Note:* *Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.*

## *EMERGENCY MEDICAL SCIENCE*

*Employment of emergency medical technicians and paramedics is expected to grow about as fast as the average for all occupations through the year 2005. Opportunities for EMT's are expected to be excellent in hospitals and private ambulance services, where pay and benefits usually are low. Competition for jobs will be keen in fire, police, and rescue squad departments because of attractive pay and benefits and good job security. While new job openings will result from expansion of emergency medical services, most openings will occur because of this occupation's substantial replacement needs. Turnover is quite high, reflecting this occupation's high-stress working conditions, limited advancement potential, and the modest pay and benefits in the private sector.*

### *Employment Information*

*Greater Kansas City Area: Emergency medical technicians held 505 jobs in the Greater Kansas City area in 1986. Approximately 558 jobs are projected through the year 2000 (+10.5%), with 11 average annual openings, including replacements, anticipated.*

*State: Approximately 1,230 emergency medical technicians were employed in Kansas in 1986. A total of 1,330 EMT jobs are projected by 1995 (+8.1%), with 50 average annual openings anticipated, including replacements.*

*National: Approximately 89,000 emergency medical technicians were employed nationwide in 1990, with 116,000 jobs projected by the year 2005 (+29.6%). About 14,000 average annual openings, including replacements, are anticipated.*

### *Salary Information*

*Greater Kansas City Area and State: Kansas emergency medical technicians earned a median salary of $14,165 to $16,286 in 1991, both throughout the state and in Johnson, Wyandotte, Leavenworth and Miami Counties. Median entry-level wage was $10,400; the highest entry-level wage reported in Kansas in 1991 was $21,070.*

*Regional: Average 1992 annual salaries within the 12 state area comprising the Central United States were: EMT-Basic, $25,040; EMT-Intermediate, $24,246, and Paramedic, $27,222. Source: Journal of Emergency Medical Services, November 1992, pp. 62-73.*

*National: According to the survey conducted by the Journal of Emergency Medical Services, the average 1992 salary nationwide for EMT-Basic was $23,846 (entry-level = $19,213), EMT-Intermediate was $22,959 (entry-level = $19,940), and Paramedic was $28,744 (entry-level = $24,621). Salary ranges were: EMT-basic, $11,000 to $41,000; EMT-Intermediate, $13,500 to $37,000, and Paramedic, $15,000 to $60,000.*

*JCCC Career Program Completers: Average annual salaries of $17,701 for EMT completers and $19,406 for MICT completers working full-time in related jobs were reported by respondents to the January 1992 follow-up of*

*1990-91 career program completers. Salaries reported by respondents working in their current full-time related job one year or less were $14,789 for EMT's and $20,717 for MICT's.*

*An average annual salary of $25,376 for EMT's and $25,085 for MICT's was reported by 1987-88 completers working full time in related jobs who responded to the 4-year follow-up study conducted in 1992.*

*JCCC Placement Information*

*Over 57% of the EMT and all of the MICT program completers responding to the January 1992 short-term follow-up study were working in jobs related to emergency medical technology. Nearly 67% of the 1987-88 EMT completers and all of the MICT completers responding to the 4-year follow-up study conducted in 1992 were working in related jobs.*

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* *The following skills and training requirements were taken from information provided by the Board of Emergency Medical Services, Bob McDaneld, Administrator, Topeka, Kansas.*

*EMT-Basic: Skills include: Basic life support, M.A.S.T.- E.O.A. Certification requirements: Successful completion of approved program and successful completion of state-administered written and practical examinations. Recertification requirements: Completion of continuing education prescribed and approved annually by the State EMS Council. Averages about 14 hours annually.*

*EMT-Intermediate: Skills include: All basic skills plus IV therapy. Certification requirements: Successful completion of approved program and successful completion of state-administered written and practical examinations. Recertification requirements: Completion of all basic level continuing education plus four hours of IV therapy prescribed and approved annually by the State EMS Council.*

*Paramedic: Skills include: All basic life support skills, plus M.A.S.T.- E.O.A., endotracheal intubation, IV therapy, drug administration. Certification requirements: Successful completion of approved program and completion of state-administered written and practical examinations. Recertification requirements: 30 hours of continuing education prescribed and approved annually by the State EMS Council.*

*Note: Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.*

## *FASHION MERCHANDISING*

*NOTE: Since no separate occupational category was detailed for fashion merchandising in available sources, employment and salary information is provided for related occupations for which completers of this program qualify.*

*Employment of buyers and merchandise managers is expected to increase about as fast as the average for all occupations through the year 2005. Over the past few years, the organizational structure of the wholesale and retail trade industries has been changing. Many firms have purchased or merged with other firms. When functions are centralized by the new organization, fewer buyers and managers are needed. Because merchandising attracts many college graduates, the number of qualified jobseekers should continue to exceed the number of openings. Buyers, especially those who buy items affected by shifting consumer preferences such as apparel, have less job security than people in many other occupations. Buyers who buy items that don't sell well are often fired.*

*Employment of retail salespersons is expected to increase faster than the average for all workers through the year 2005. As in the past, replacement needs will generate an exceptionally large number of sales jobs because the occupation is large and turnover is much higher than average.*

### *Employment Information*

*Greater Kansas City Area: Retail buyers held 998 jobs in the Greater Kansas City area in 1986. Approximately 1,062 jobs are projected through the year 2000 (+6.4%), with 43 average annual openings, including replacements, anticipated.*

*Retail sales is among the fastest growing occupations in the Greater Kansas City area through the year 2000. Salespersons held 26,344 jobs in the Greater Kansas City area in 1986. Approximately 34,474 jobs are projected through the year 2000 (+30.9%). First line sales supervisors held 6,752 jobs in 1986, with 8,405 jobs projected through the year 2000 (+24.5%). Approximately 481 average annual supervisory openings and 2,369 average annual retail sales openings, including replacements, are anticipated.*

*State: Wholesale and retail buyers held 1,820 jobs in Kansas in 1986. Approximately 1,920 jobs are projected for 1995 (+5.5%), with 110 average annual openings expected. First line sales supervisors held 7,920 jobs in Kansas in 1986. Over 9,000 jobs are projected for 1995 (+13.9%) with 530 average annual openings, including replacements, anticipated.*

*National: Wholesale and retail buyers held about 194,000 jobs in 1990, with 235,000 jobs projected by the year 2005 (+21.0%). Approximately 30,000 average annual job openings, including replacements, are projected. Retail sales workers held over 3.8 million jobs in 1988, with nearly 4.6 million jobs projected by the year 2000 (+19.0%).*

*Salary Information*

*Greater Kansas City Area: In 1991, retail sales workers in Johnson, Leavenworth, Miami and Wyandotte counties earned a median hourly wage ranging from $5.91 to $6.80, and sales supervisors and buyers earned between $11.96 and $13.75 on the average. First-line sales supervisors earned a median entry-level wage of $7.10, and sales clerks earned $5.15.*

*State: In 1991 buyers in Kansas earned $11.96 to $13.75 on the average; the lowest reported wage was less than $5.12, and the highest was more than $24.00. Median entry-level wage for buyers was $7.80. Retail sales supervisors earned a median hourly wage of $10.39 to $11.95 and an entry-level median wage of $7.93 per hour.*

*National: Median hourly earnings of buyers were $12.07 in 1990. Most buyers earned between $8.46 and $16.64; the lowest 10% averaged less than $6.49, and the top 10% earned more than $22.45 per hour. A buyer's income depends upon the amount and type of product purchased, the employer's sales volume and, to some extent, the buyer's seniority.*

*Median hourly earnings of retail sales workers in the apparel field was $5.48 in 1990. In some areas where employers are having difficulty attracting and retaining workers, wages are much higher.*

*JCCC Career Program Completers: An average hourly wage of $6.90 was reported by 1990-91 JCCC fashion merchandising program completers responding to the January 1992 follow-up study who were working full time in jobs related to fashion merchandising. Respondents employed in their current job one year or less reported an average hourly wage of $6.50.*

*An average hourly wage of $11.00 was reported by 1987-88 completers working full time in related jobs who responded to the 4-year follow-up study conducted in 1992.*

*JCCC Placement Information*

*Three out of the four 1990-91 fashion merchandising program completers responding to the January 1992 follow-up study were working in jobs related to fashion merchandising, and one was out of the labor force.*

*Two out of the three of the 1987-88 fashion merchandising program completers contacted in 1992 were employed in jobs related to fashion merchandising, and one was employed in an unrelated job.*

*Note: Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.*

## *FIRE SCIENCE*

*Employment of firefighters is expected to increase about as fast as the average for all occupations through the year 2005. Much of the expected increase will occur in smaller communities with expanding populations that augment volunteers with career firefighters to better meet growing, increasingly complex fire protection needs. Little growth is expected in large, urban fire departments. The number of qualified applicants in most areas generally exceeds the number of job openings, even though the written examination and physical requirements eliminate many applicants. This situation is expected to persist through the year 2005.*

*Experience as a volunteer firefighter or in the Armed Forces, and completion of community college courses in fire science, will improve an applicant's chances for appointment. In fact, in recent years, an increasing proportion of entrants to this occupation have some postsecondary education.*

### *Employment Information*

*Greater Kansas City Area: About 1,428 workers were employed in fire fighting occupations in the Greater Kansas City area in 1986, with 1,569 positions projected through the year 2000 (+9.9%). Approximately 23 average annual openings are anticipated, including replacements.*

*State: Nearly 2,900 fire fighters were employed in Kansas in 1986. Over 3,000 jobs are projected by 1995 (+5.2%) with 30 average annual openings anticipated. Fire fighting and prevention supervisors held 460 jobs in Kansas in 1986. Approximately 490 jobs are anticipated by 1995 (+6.5%), with 10 average annual openings, including replacements, anticipated.*

*National: Fire fighters held about 280,000 jobs in 1990, with 348,000 jobs projected by the year 2005 (+24.5%). Approximately 14,000 average annual openings, including replacements, are anticipated.*

### *Salary Information*

*Greater Kansas City Area: Fire fighters in Johnson, Leavenworth, Miami and Wyandotte counties earned a median salary of $21,611 to $24,856 in 1991. Median salary for fire inspectors and supervisors ranged from $28,621 to $32,906.*

*State: In 1991 fire fighters in Kansas earned a median salary ranging from $16,307 to $18,762. Fire inspectors earned between $18,782 and $21,590 on the average, and supervisors earned median annual salaries of $24,877 to 28,600. Entry-level median wage for fire fighters was $13,458.*

*National: According to a 1990 survey by the International City Management Association, entrance salaries for beginning full-time firefighters averaged about $19,700 a year. Nonsupervisory firefighters had an average salary of about $25,000, but their earnings varied considerably depending on city size*

and region of the country. Average earnings ranged from $23,200 in the smallest cities to $31,400 in the largest cities. Fire lieutenants and captains may earn considerably more.

JCCC Career Program Completers: An average annual salary of $26,624 was reported by 1990-91 JCCC fire science program completers responding to the January 1992 follow-up study who were working full time in jobs related to fire science.

An average annual salary of $33,904 was reported by 1987-88 fire science program completers working full time in related jobs who responded to the 4-year follow-up study conducted in 1992.

JCCC Placement Information

Approximately 71% of the 1990-91 fire science program completers responding to the short-term follow-up study, and all of the 1987-88 completers responding to the long-term follow-up study were employed in related jobs in 1992. The remainder were either pursuing additional education or unemployed and looking for work.

Note: Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## *HEALTH INFORMATION TECHNOLOGY*

*The job prospects for formally trained technicians should be excellent. Employment of medical record technicians is expected to grow much faster than the average for all occupations through the year 2005 due to rapid growth in the number of medical tests, treatments, and procedures and because medical records will be increasingly scrutinized by third-party payers, courts, and consumers. A change in Medicare reimbursement policies starting January 1990 has increased the need for detailed medical records in offices and clinics. This should translate into rapid growth in employment opportunities for medical record technicians in a variety of settings. Hospitals will continue to employ the most technicians, and most job openings will occur because of replacement needs.*

*Most employers prefer to hire Accredited Record Technicians (ART). Accreditation is obtained by passing a written examination offered by the American Medical Record Association. To take the examination, a person must be a graduate of a 2-year accredited associate degree program.*

### *Employment Information*

*Greater Kansas City Area: Medical record technicians held 398 jobs in the Greater Kansas City area in 1986. Approximately 630 jobs are projected through the year 2000 (+58.3%), with 33 average annual openings, including replacements, anticipated.*

*State: Nearly 700 medical record technicians and technologists were employed in Kansas in 1986. Approximately 870 positions are projected by 1995 (+26.1%), with 40 average annual openings, including replacements, anticipated.*

*National: Medical record technicians held about 52,000 jobs in 1990, with 80,000 jobs projected by the year 2005 (+54.3%). Approximately 8,000 average annual openings, including replacements, are anticipated. Medical record technicians are listed among the fastest growing occupations to the year 2005.*

### *Salary Information*

*Greater Kansas City Area: Medical record technicians in Johnson, Leavenworth, Miami and Wyandotte counties earned a median hourly wage of $7.84 to $9.02 in 1991. Median entry-level wage was $6.00 per hour.*

*State: Kansas medical record technicians earned a median hourly wage of $5.91 to $6.80 in 1991. The lowest wage reported was less than $4.44, the highest was more than $24.00, and the average entry-level hourly wage was $6.72.*

*National: In 1991 medical record technicians employed full-time in private hospitals earned an average of $9.70, excluding premium pay for overtime and for work on weekends, and technicians employed by the federal*

*government averaged $9.45 per hour. According to a 1989 survey by the American Medical Record Association, Accredited Record Technicians averaged $10.80 per hour.*

*JCCC Career Program Completers: An average hourly wage of $10.32 was reported by 1990-91 health information technology program completers responding to the January 1992 follow-up study who were working full time in jobs related to their course of study.*

*Respondents to the 4-year follow-up study of 1987-88 career program completers conducted in 1992 who were working full time in a job related to health information technology reported an hourly wage of $12.19.*

## *JCCC Placement Information*

*Fully 80% of respondents to the 1992 follow-up of 1990-91 health information technology program completers were working in jobs related to medical record technology, and 20% were employed in unrelated jobs.*

*Nearly 78% of respondents to the 4-year follow-up study of 1987-88 health information technology completers were working in jobs related to their course of study; 11% were employed in unrelated jobs and 11% were pursuing additional education.*

*Note: Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.*

## *HVAC TECHNOLOGY*

*Employment of heating, air-conditioning, and refrigeration mechanics is expected to increase about as fast as the average for all occupations through the year 2005. Regulations in the 1990 Clean Air Act prohibiting the intentional discharge of CFC refrigerants and banning CFC production by the year 2000 could result in additional retrofit and replacement of existing equipment and create more jobs in this field.. Those who specialize in the installation of new systems may experience periods of unemployment when the level of construction activity declines. On the other hand, employment of those doing maintenance work is relatively stable.*

*Because of the increased sophistication of heating, air-conditioning, and refrigeration systems, most employers prefer to hire those with technical school or apprenticeship training. Experienced mechanics may need to take courses to keep up with changes in technology and to expand their skills.*

### *Employment Information*

*Greater Kansas City Area: Heating, air conditioning and refrigeration mechanics held 1,454 jobs in the Greater Kansas City area in 1986, with 1,854 jobs projected by the year 2000 (+27.5%). Approximately 84 average annual openings are anticipated, including replacements.*

*State: Over 2,300 refrigeration and air-conditioning mechanics were employed in Kansas in 1986. Approximately 2,670 jobs are projected by 1995 (+15.6%), with 90 average annual openings, including replacements, anticipated.*

*National: About 219,000 heating, air conditioning, and refrigeration mechanics and installers were employed nationwide in 1990, and approximately 266,000 jobs are projected by the year 2005 (+21.1%). Approximately 18,000 average annual openings, including replacements, are anticipated.*

### *Salary Information*

*Greater Kansas City Area: Heating, air conditioning, and refrigeration mechanics and installers in Johnson, Leavenworth, Miami and Wyandotte counties earned a median hourly wage of $10.39 to $11.95 in 1991.*

*State: Heating, air conditioning, and refrigeration mechanics and installers in Kansas earned a median hourly wage of $10.39 to $11.95 in 1991. Median entry-level hourly wage was $6.70.*

*National: Median hourly earnings of air-conditioning, heating, and refrigeration mechanics who were not self-employed were $11.18 in 1990. The middle 50% earned between $7.98 and $15.25. The lowest 10% earned less than $6.53 and the top 10% earned more than $19.38 per hour.*

*JCCC Career Program Completers: An average hourly wage of $12.80 was reported by 1990-91 HVAC technology program completers responding to the January 1992 follow-up study who were working full time in jobs related to HVAC technology.*

*Respondents to the 4-year follow-up study of 1987-88 career program completers employed full time in jobs related to HVAC technology reported an average hourly wage of $15.20 in 1992.*

*JCCC Placement Information*

*Fifty percent of the 1990-91 HVAC technology program completers responding to the January 1992 follow-up study were working in jobs related to HVAC technology; 33% were pursuing additional education and the remainder were either working in an unrelated job or unemployed and looking for work.*

*Over 83% of the 1987-88 HVAC technology program completers responding to the 1992 study were working in jobs related to HVAC; the remainder were employed in unrelated jobs.*

*Note: Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.*

## *HOSPITALITY MANAGEMENT*

*Employment of restaurant and food service managers is expected to increase faster than the average for all occupations through the year 2005. Projected employment growth, however, varies by industry. For example, employment of restaurant and food service managers is expected to increase rapidly in hotels, and growth in the population of elderly people is expected to result in growth of food service manager jobs in nursing homes, residential care facilities, and other health care institutions. Slower growth is anticipated in school and college cafeterias due to increased contracting-out of cafeteria operations to institutional food service companies.*

*Job opportunities are expected to be best for persons with bachelor's or associate degrees in restaurant and institutional food service management. Most restaurant and food service managers work in restaurants or for contract institutional food service companies, and nearly half of were self-employed in 1990. Jobs are located throughout the country, but are most plentiful in large cities and tourist areas.*

### *Employment Information*

*Greater Kansas City Area: Food service and lodging managers are among the fastest growing occupations in the Greater Kansas City area through the year 2000. Food service and lodging managers held 2,692 jobs in the Greater Kansas City area in 1986. Approximately 3,360 jobs are projected through the year 2000 (+24.8), with 171 average annual openings, including replacements, anticipated.*

*State: Food service and lodging managers held 8,100 jobs in Kansas in 1986. Approximately 10,380 food service and lodging manager positions are projected by 1995 (+28.1%), with 620 average annual openings, including replacements, anticipated.*

*National: About 595,000 workers were employed as food service and lodging managers in 1990, with 793,000 jobs projected by the year 2005 (+33.2%). Approximately 65,000 average annual openings, including replacements, are anticipated.*

### *Salary Information*

*Greater Kansas City Area: Food service and lodging managers in Johnson, Leavenworth, Miami and Wyandotte counties earned a median annual salary of $18,782 to $21,590 in 1991. The lowest reported salary was less than $8,000, and the highest was more than $66,000.*

*State: In 1991 the median annual salary for food service and lodging managers in Kansas was $16,307 to $18,762. The lowest reported salary was less than $8,000, and the highest was more than $66,000. Median entry-level salary was $14,040.*

*National: Earnings of restaurant and food service managers vary greatly according to the type and size of establishment. Based on a survey conducted for the National Restaurant Association, their median base salary was nearly $26,000 in 1990, but managers of the largest restaurants and institutional food service facilities often had annual salaries in excess of $42,000. Besides a salary, most managers received an annual bonus or incentive payment based on their performance. In 1990, most of these payments ranged between $2,000 and $8,000 a year.*

*Manager trainees had a median base salary of $18,600 in 1990, but had salaries of nearly $26,000 in some of the largest restaurants and food service facilities. Annual bonus or incentive payments of most trainees ranged between $1,000 and $3,000 a year.*

*JCCC Career Program Completers: An average annual salary of $16,910 was reported by 1990-91 hospitality management program completers responding to the January 1992 follow-up study who were working full time in jobs related to hospitality management. Males reported an average annual salary of $18,221, and females were earning an average of $16,598 per year. The majority (75%) had been employed in their current full-time related job one year or less.*

*An average annual salary of $27,331 was reported by 1987-88 hospitality management program completers working full time in related jobs who responded to the 4-year follow-up study conducted in 1992.*

## *JCCC Placement Information*

*Three out of four of the 1990-91 hospitality management program completers responding to the January 1992 follow-up study, and 88% of the 1987-88 completers contacted in 1992, were employed in jobs related to hospitality management. Only one respondent was unemployed and looking for work.*

*Note: Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.*

## *INTERIOR MERCHANDISING*

*NOTE: Since no separate occupational category was detailed for interior merchandising in available sources, employment and salary information is provided for related occupations for which completers of this program qualify.*

*Employment of buyers and merchandise managers is expected to increase about as fast as the average for all occupations through the year 2005. Over the past few years, the organizational structure of the wholesale and retail trade industries has been changing. Many firms have purchased or merged with other firms. When functions are centralized by the new organization, fewer buyers and managers are needed. Because merchandising attracts many college graduates, the number of qualified jobseekers should continue to exceed the number of openings. Buyers, especially those who buy items affected by shifting consumer preferences, have less job security than people in many other occupations. Buyers who buy items that don't sell well are often fired.*

*Employment of retail salespersons is expected to increase faster than the average for all workers through the year 2005. As in the past, replacement needs will generate an exceptionally large number of sales jobs because the occupation is large and turnover is much higher than average.*

### *Employment Information*

*Greater Kansas City Area: Retail buyers held 998 jobs in the Greater Kansas City area in 1986. Approximately 1,062 jobs are projected through the year 2000 (+6.4%), with 43 average annual openings, including replacements, anticipated.*

*Retail salespersons held 25,736 jobs in the Greater Kansas City area in 1986. Approximately 33,681 jobs are projected through the year 2000 (+30.9%). First line sales supervisors held 6,752 jobs in 1986, with 8,405 jobs projected through the year 2000 (+24.5%). Approximately 481 average annual supervisory openings and 2,315 average annual retail sales openings, including replacements, are anticipated.*

*State: Wholesale and retail buyers held 1,820 jobs in Kansas in 1986. Approximately 1,920 buyer positions are projected by 1995 (+5.5%), with 110 average annual openings expected, including replacements. First line sales supervisors held 7,920 jobs in Kansas in 1986. Over 9,000 jobs are projected by 1995 (+13.9%) with 530 average annual openings, including replacements, anticipated.*

*National: Wholesale and retail buyers held about 194,000 jobs in 1990, with 235,000 jobs projected by the year 2005 (+21.0%). Approximately 30,000 average annual job openings, including replacements, are projected. Retail sales workers held over 3.8 million jobs in 1988, with nearly 4.6 million jobs projected by the year 2000 (+19.0%).*

*Salary Information*

*Greater Kansas City Area: Interior designers earned a median hourly wage in Johnson, Leavenworth, Miami and Wyandotte counties of $7.84 to $9.02 in 1991. Retail sales workers earned a median hourly wage ranging from $5.91 to $6.80, and sales supervisors and buyers earned between $11.96 and $13.75, on the average. First-line sales supervisors earned a median entry-level wage of $7.10 per hour.*

*State: In 1991 interior designers in Kansas earned a median hourly wage ranging from $10.39 to $11.95. Buyers earned $11.96 to $13.75 on the average; the lowest reported wage was less than $5.12, and the highest was more than $24.00. Median entry-level wage for buyers was $7.80. Retail sales supervisors earned a median hourly wage of $10.39 to $11.95 and an entry-level median wage of $7.93 per hour.*

*National: Median hourly earnings of buyers were $12.07 in 1990. Most buyers earned between $8.46 and 16.64; the lowest 10% averaged less than $6.49, and the top 10% earned more than $22.45 per hour. A buyer's income depends upon the amount and type of product purchased, the employer's sales volume and, to some extent, the buyer's seniority.*

*Median hourly earnings of furniture and home furnishings retail sales workers were $8.63 in 1990. In some areas where employers are having difficulty attracting and retaining workers, wages are much higher.*

*JCCC Career Program Completers: An average hourly wage of $15.00 was reported by 1990-91 JCCC interior merchandising program completers responding to the January 1992 follow-up study who were working full time in jobs related to interior merchandising. All had been employed in their current job for more than one year.*

*Respondents to the 1992 follow-up study of 1987-88 career program completers who were working full time in jobs related to interior merchandising reported an average hourly wage of $13.14.*

*JCCC Placement Information*

*Approximately 62% of the 1990-91 interior merchandising program completers responding to the January 1992 follow-up study were working in jobs related to interior merchandising; the remainder were either employed in unrelated jobs or out of the labor force.*

*Fifty percent of the 1987-88 interior merchandising program completers contacted in 1992 were employed in jobs related to interior merchandising; 33% were working in unrelated jobs and 17% were pursuing additional education.*

*Note: Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.*

## *MARKETING & MANAGEMENT*

*Employment of marketing, advertising, and public relations managers is expected to increase much faster than the average for all occupations through the year 2005. Projected employment growth varies by industry, however. For example, employment of marketing, advertising, and public relations managers is expected to grow very rapidly in most services industries and in motor vehicle dealerships, but more moderate growth is projected in manufacturing industries overall.*

*Most marketing, advertising, and public relations management positions are filled by promoting experienced staff or related professional or technical personnel. Although a wide range of educational backgrounds are suitable for entry into marketing, advertising, and public relations managerial jobs, college graduates with extensive experience, a high level of creativity, and strong communication skills should have the best job opportunities.*

### *Employment Information*

*Greater Kansas City Area: Marketing, advertising and public relations managers are listed among the occupations with the highest anticipated annual growth in the Greater Kansas City area through the year 2000. Marketing, advertising, and public relations managers held 2,702 jobs in the Greater Kansas City area in 1986. Approximately 3,632 jobs are projected through the year 2000 (+34.4%), with 150 average annual openings, including replacements, anticipated.*

*State: Nearly 3,900 jobs were held by marketing, advertising and public relations managers in Kansas in 1986. Approximately 4,640 positions are projected by 1995 (+19.9%), with 230 average annual openings, including replacements, anticipated.*

*National: Marketing, advertising, and public relations managers held about 427,000 jobs in 1990, and females held 31% of these positions. Approximately 630,000 jobs are projected for the year 2005 (+47.4%), with 59,000 average annual openings, including replacements, anticipated. Marketing, advertising, and public relations managers are listed among the fastest growing occupations to the year 2005.*

### *Salary Information*

*Greater Kansas City Area: The median salary for marketing, advertising, and public relations managers in Johnson, Leavenworth, Miami and Wyandotte counties ranged from $37,877 to $43,555 in 1991. The lowest salary reported was less than $13,000 and the highest was more than $100,000 per year.*

*State: In 1991 the median annual salary for marketing, advertising, and public relations managers in Kansas was $32,926 to $37,856. The lowest salary reported was less than $11,000, and the highest was more than $100,000 a year. Median entry-level wage was $21,632.*

*National: The median annual salary of marketing, advertising, and public relations managers was $41,400 in 1990. The lowest 10% earned $20,300 or less, and the top 10% earned $78,500 or more. Salary levels vary substantially depending upon the level of managerial responsibility, length of service, education, and size and location of the firm.*

*JCCC Program Completers: An average annual salary of $27,019 was reported by 1990-91 marketing and management program completers responding to the January 1992 follow-up study who were working full time in jobs related to marketing and management. The average annual salary was $31,678 for males and $23,525 for females.*

*An average annual salary of $23,629 was reported by 1987-88 marketing and management program completers working full time in related jobs who responded to the 4-year follow-up study conducted in 1992. The average annual salary was $20,800 for males and $24,190 for females.*

## *JCCC Placement Information*

*Nearly 77% of respondents to the January 1992 follow-up of 1990-91 marketing and management program completers were employed in jobs related to marketing and management; 8% were pursuing additional education and 15% were unemployed and looking for work.*

*Nearly 88% of the 1987-88 marketing and management program completers contacted in 1992 were employed in jobs related to their JCCC course of study, and 12% were working in unrelated jobs.*

*Note: Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.*

## *METAL FABRICATION*

*Metal fabricators construct and assemble structural metal products such as frameworks or shells for machinery, ovens, tanks, stacks and metal parts for buildings and bridges according to job orders or blueprints, utilizing welding skills. Welders who work on aircraft, boilers, buildings, bridges, pipelines, and other jobs where the strength of the weld is critical for safety must pass employer performance tests or standard tests to become certified. Employment outlooks and wages are provided for related occupational categories where metal fabricators were not detailed separately in available sources.*

*Little or no change in employment of welders, cutters, and welding machine operators is expected through the year 2005. Most job openings will result from the need to replace experienced workers who transfer to other occupations or leave the labor force. In certain industries--construction, wholesale trade, and repair services, for example--employment of welders and cutters will grow. The level of construction is expected to expand, as is the number of metal products needing repair, increasing the need for welding and cutting. This work is generally less routine and more difficult to automate than other welding jobs. Despite the welding jobs eliminated by robot welding systems, manual welders will still be needed for the maintenance, repair, and other work in manufacturing that cannot be automated.*

### *Employment Information*

*Greater Kansas City Area: Metal fabricating setters and operators held 1,406 jobs in the Greater Kansas City area in 1986. Approximately 1,371 jobs are projected by the year 2000 (-2.5%), with 31 average annual openings, including replacements, anticipated.*

*State: Approximately 4,460 welders and flame cutters were employed in Kansas in 1986. Nearly 4,900 welding jobs are projected by 1995 (+9.9%) with 140 average annual openings, including replacements, anticipated. Structural metal workers held 570 jobs in 1986, with 640 jobs projected by 1995 and 20 average annual openings, including replacements, expected.*

*National: Metal fabricators held approximately 34,000 jobs in 1990, with 37,000 jobs projected by the year 2005 (+10.5%). Welders and cutters, machine operators, setters, and hand workers held 427,000 jobs in 1990, with 445,000 jobs projected by the year 2005 (+4.3%). Approximately 51,000 average annual openings, including replacements, are projected.*

### *Salary Information*

*Greater Kansas City Area: Welders and cutters in Johnson, Leavenworth, Miami and Wyandotte counties earned a median hourly wage of $10.39 to $11.95 in 1991. The lowest reported wage was less than $5.12 and the highest was more than $15.80. Metal fabricators (structural metal products) earned a between $9.03 and $10.38, on the average.*

*State: Metal fabricators (structural metal products) and welders and cutters in Kansas earned a median hourly wage of $9.03 to 10.38 in 1991. Median entry-level hourly wage was $6.50.*

*National: Median hourly wage for welders and welding machine operators was about $10.63 in 1990. The top 10% earned more than $17.50, and the lowest 10% earned less than $6.25 per hour.*

*JCCC Salary and Placement Information*

*The one respondent to the 1990 three-year follow-up study of 1986-87 career program completers who was working full time in a job related to metal fabrication reported an hourly wage of $12.00. No completers of the metal fabrication program responded to any of the more recent follow-up studies of JCCC career program completers.*

*Note: Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.*

## *NURSING*

*Job prospects in nursing should be very good for some time, but how long the shortage of nurses will persist is difficult to say. Hospitals in many parts of the country are reporting shortages of R.N.'s, although shortages appear to be lessening. In addition, R.N. recruitment has long been a problem in rural areas, in some big city hospitals, and in specialty areas including intensive care, medical-surgical nursing, rehabilitation, geriatrics, and long-term care. Reports of excellent job prospects and rising wages have caused enrollments in nursing programs to increase, and eventually more new graduates and employers' efforts to make more efficient use of nurses should create a balance between jobseekers and openings.*

*Employment in hospitals, the largest sector, is expected to grow only as fast as average, while employment in physicians' offices and clinics, including HMOs, ambulatory surgicenters, and emergency medical centers is expected to grow very rapidly as health care in general expands. Home health care and employment in nursing homes is also becoming an increasingly important source of employment due to the projected sharp increase in the number of people in their 80's and 90's, many of whom will require long-term care.*

### *Employment Information*

*Greater Kansas City Area: Registered nurses are on both the list of occupations with the highest anticipated annual job openings and occupations with the highest anticipated annual growth in the Greater Kansas City area through the year 2000. Registered nurses held 11,887 jobs in the Greater Kansas City area in 1986. Approximately 15,217 jobs are projected through the year 2000 (+28.0%), with 567 average annual openings, including replacements, anticipated.*

*State: Nearly 14,000 registered nurses were employed in Kansas in 1986. Approximately 16,260 nursing positions are projected by 1995 (+16.2%) with 570 average annual openings, including replacements, anticipated.*

*National: Registered nurses held approximately 1,727,000 jobs in 1990, with 2,494,000 jobs projected by the year 2005 (+44.4%). Approximately 172,000 average annual openings, including replacements, are anticipated. Registered nurses are listed among the fastest growing, and among occupations with the largest projected numerical increases, to the year 2005.*

### *Salary Information*

*Greater Kansas City Area: The median annual salary for registered industrial nurses in the Greater Kansas City area was $29,172 in September 1991, and entry-level registered nurses earned an average of $29,120 in July 1992. Registered nurses in Johnson, Leavenworth, Miami and Wyandotte counties earned a median salary of $32,926 to $37,856 in 1991.*

*State: Registered nurses in Kansas earned a median salary of $24,877 to $28,600 in 1991. Median entry-level salary was $27,040.*

*National: A survey of nursing salaries in nearly 800 hospitals nationwide at the end of 1991 showed a slowing of raises after several years of strong increases. Staff nurses employed full time in private hospitals averaged $32,696, excluding premium pay for overtime and for work on weekends, holidays, and late shifts in January 1991. R.N. staff nurses in nursing homes earned $26,957 in 1991 according to a survey by the Hospital Compensation Service, although a survey by Hay Management Consultants which examined data on more than 200,000 nurses reported an average base salary of $32,600 for starting RNs at the close of 1991.*

*JCCC Career Program Completers: An average annual salary of $31,429 was reported by 1990-91 nursing program completers responding to the January 1992 follow-up study who were working full time in jobs related to nursing.*

*An average annual salary of $37,565 was reported by 1987-88 nursing program completers working full time in related jobs who responded to the 4-year follow-up study conducted in 1992.*

## *JCCC Placement Information*

*Over 94% of the 1990-91 nursing program completers responding to the 1992 short-term follow-up study and all of the 1987-88 nursing program completers responding to the 1992 long-term follow-up study were working in jobs related to nursing.*

*Note: Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.*

## *OCCUPATIONAL THERAPY ASSISTANT & PHYSICAL THERAPY ASSISTANT*

*Occupational therapy assistants aid occupational therapists in administering medically oriented occupation programs to assist in rehabilitating patients in hospitals and similar institutions. Physical and corrective therapy assistants prepare patients and/or administer physical therapy treatment, such as massages, heat, light and sound treatments, and traction. These workers instruct, motivate, and assist patients with learning and improving functional activities. They work in offices of physicians and other health practitioners, hospitals, and outpatient care facilities. Much faster than average growth is anticipated in both occupations through the year 2005.*

*Both the occupational therapy assistant and the physical therapy assistant programs are offered in cooperation with Penn Valley Community College. The support courses are provided at JCCC, and the clinical courses are conducted at Penn Valley and affiliated clinical agencies. All program completers are required to pass a national certification examination.*

### *Employment Information*

*Greater Kansas City Area: Occupational therapy assistants held 66 jobs in the Greater Kansas City area in 1986. Approximately 92 jobs are projected through the year 2000 (+39.4%). Four average annual openings, including replacements, are anticipated.*

*Physical and correctional therapy assistants held 271 jobs in the Greater Kansas City area in 1986, with 395 positions projected through the year 2000 (+45.8%). About 17 average annual openings for physical therapy assistants are anticipated, including replacements.*

*State: Specific employment information for occupational and physical therapy assistants was not provided in the most recent Kansas projections. The category of "all other health professionals, paraprofessionals and technicians" projected an 8.5% increase in employment for this category from 1986 to 1995, with 150 average annual openings, including replacements, anticipated.*

*National: Nearly 10,000 occupational therapy assistants and aids were employed in 1990, with 15,000 jobs projected by the year 2005 (+56.9%). Approximately 3,000 average annual openings, including replacements, are anticipated.*

*Nearly 45,000 physical and corrective therapy assistants and aids were employed in 1990, with 74,000 jobs projected by the year 2005 (+64.0%). Approximately 13,000 average annual openings, including replacements, are anticipated. Physical and corrective therapy assistants and aides are listed among the fastest growing occupations to the year 2005.*

*Salary Information*

*Greater Kansas City Area: Physical and corrective therapy assistants and aides in Johnson, Leavenworth, Miami and Wyandotte counties earned a median hourly wage of $4.45 to $5.12 in 1989.*

*State: Physical and corrective therapy assistants and aides in Kansas earned a median hourly wage ranging from $5.13 to $5.90 in 1991. Median entry-level wage was $5.00 an hour.*

*JCCC Salary and Placement Information*

*An average hourly wage of $10.49 was reported by physical therapy assistant program completers who responded to the 1992 follow-up study of 1990-91 completers. The average hourly wage reported by respondents in their current job for one year or less was $10.15. All of the physical therapy assistant program completers who responded to the study were working in jobs related to their career program.*

*Data for occupational therapy assistant program completers were unavailable due to lack of response to recent follow-up studies from completers of this program.*

*Note: Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.*

## *OFFICE AUTOMATION TECHNOLOGY*

*Little or no change in employment of typists, word processors, and data entry keyers is expected through the year 2005 despite the "information explosion" and rapid growth in the volume of business transactions. Technological advances, such as the installation of more powerful word processing equipment, have raised productivity significantly. Further automation of currently automated tasks is expected and should continue to reduce the amount of typing, word processing, and data entry to be done. More and more, data are being captured at the point of origin and entered into the system without human intervention due to utilization of advancing technologies such as optical character recognition readers, voice recognition technologies, bar code scanners, and electronic data interchange.*

*Job prospects will be brightest for those with the best technical skills. In particular, the more computer software packages these workers know or expertise they have in combining word processing with graphics or spreadsheets, the better their job opportunities will be. The proportion of these workers who transfer to other occupations is higher than average, suggesting that this work serves as a stepping stone to higher paying, more responsible jobs.*

### *Employment Information*

*Greater Kansas City Area: Word processing is among the fastest growing occupations in the Greater Kansas City area through the year 2000. Word processors held 2,376 jobs in the Greater Kansas City area in 1986, with 3,169 jobs projected through the year 2000 (+33.4%). Approximately 129 average annual openings, including replacements, are anticipated.*

*State: Over 2,500 word processors were employed in Kansas in 1986. Approximately 3,010 word processing positions are projected by 1995 (+19.4%), with 120 average annual openings, primarily replacements, anticipated.*

*National: Typists and word processors held 972,000 jobs in 1990, down from 1,002,000 jobs in 1986. Approximately 869,000 jobs are projected by the year 2005 (-10.6%), with 205,000 average annual openings, including replacements, anticipated.*

### *Salary Information*

*Greater Kansas City Area: Word processors in the Greater Kansas City area earned a median hourly wage of $9.46 in September 1991, with an average entry-level wage of $7.25 in July 1992.*

*State: Kansas word processors earned a median hourly wage of $7.84 to $9.02 in 1991; with a median entry-level wage of $6.52.*

*National: Typists, word processors, and data entry keyers earned an average hourly wage of $8.03 in 1990, and word processors as a separate occupation averaged $9.04 per hour.*

*JCCC Career Program Completers:* *Respondents to the January 1992 follow-up study of 1990-91 completers employed full time in a job related to office automation technology reported an average hourly wage of $10.48.*

*An average hourly wage of $16.85 was reported by 1987-88 program completers employed full time in jobs related to office automation technology who responded to the 4-year follow-up study conducted in 1992.*

*JCCC Placement Information*

*All of the office information technology program completers responding to recent follow-up studies were working in jobs related to office automation technology.*

*Note:* *Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.*

*Employment of secretaries is expected to grow about as fast as the average for all occupations through the year 2005. Despite productivity gains made possible by office automation, there will continue to be strong demand for secretaries. Many employers currently complain of a shortage of first-rate secretaries. The trend toward having secretaries assume more responsibilities traditionally reserved for managers and professionals also will stimulate demand. As a result, well-qualified and experienced secretaries will continue to be in great demand and should find many job opportunities.*

*Employment Information*

*Greater Kansas City Area: Secretarial positions are among the fastest growing occupations in the Greater Kansas City area through the year 2000. Secretaries held 22,872 jobs in the Greater Kansas City area in 1986. Legal secretaries held 1,925 jobs, medical secretaries held 1,244 jobs, and all other secretaries held 19,703 jobs. Approximately 28,836 secretarial jobs are projected through the year 2000 (+26.1%), with 1,145 average annual openings, including replacements, anticipated. First line clerical supervisors held 7,451 jobs in 1986, with 9,084 jobs projected by the year 2000 (+21.9%). Approximately 347 average annual openings for clerical supervisors are anticipated, including replacements.*

*State: General secretaries and stenographers held 27,540 jobs in Kansas in 1986, with 30,740 jobs projected by 1995 (+11.6%). Approximately 1,090 average annual openings, including replacements, are anticipated. Legal secretaries held 1,730 jobs; approximately 2,360 jobs are projected by 1995 (+36.4%), with 120 average annual openings anticipated, including replacements. Medical secretaries held 1,130 jobs; approximately 1,170 jobs are projected by 1995 (+3.5%), with 30 average annual openings, primarily replacements, anticipated. First-line clerical supervisors held 12,790 jobs in Kansas in 1986. Approximately 14,460 clerical supervisor positions are projected by 1995 (+13.0%), with 530 average annual openings anticipated.*

*National: About 3,576,000 secretaries held jobs in 1990, with 4,116,000 jobs projected by the year 2005 (+15.1%). Of those, about 281,000 were legal secretaries (with 413,000 jobs for legal secretaries projected by the year 2005; +47.4%), and 232,000 were medical secretaries (with 390,000 jobs for medical secretaries projected by the year 2005; +68.3%).*

*Approximately 566,000 average annual openings for secretaries, including replacements, are anticipated. Legal and medical secretaries are among the fastest growing occupations to the year 2005, and all other secretaries and clerical supervisors and managers are listed among the occupations with the largest numerical increases projected.*

*Salary Information*

*Greater Kansas City Area: Secretaries in the Greater Kansas City area earned a median hourly wage of $10.55 in September 1991, with an average entry-level wage of $7.00 per hour in July 1992. Secretaries in Johnson,*

*Leavenworth, Miami and Wyandotte counties earned a median hourly wage of $7.84 to $9.02 in 1991 (entry level= $6.00); legal secretaries earned $10.39 to $11.95 (entry level = $6.43), and medical secretaries earned $7.84 to $9.02 (entry level = $7.00). First line clerical supervisors in Johnson, Leavenworth, Miami and Wyandotte counties earned a median hourly wage of $10.39 to $11.95 (entry-level = $8.41).*

*State: Kansas secretaries earned a median hourly wage of $7.84 to $9.02 in 1991 (entry-level = $6.00); legal secretaries earned $9.03 to $10.38 (entry-level = $6.43), and medical secretaries earned $7.84 to $9.02 (entry-level = $7.00). First line clerical supervisors earned a median hourly wage of $10.39 to $11.95 (entry-level = 8.41).*

*National: The average hourly wage for all secretaries was $11.59 in 1990. Salaries vary a great deal, however, reflecting differences in skill, experience, and level of responsibility. The starting hourly rate for inexperienced secretaries in the federal government was $7.31 in 1991, and the average for all secretaries employed by the Federal Government was $9.86.*

*JCCC Career Program Completers: An average hourly wage of $8.32 was reported by 1990-91 office careers program completers responding to the January 1992 follow-up study who were working full time in related jobs. Respondents employed in their current full-time related jobs one year or less reported an average hourly wage of $7.63.*

*An average hourly wage of $10.64 was reported by 1987-88 office careers program completers working full time in related jobs who responded to the 4-year follow-up study conducted in 1992.*

## *JCCC Placement Information*

*Nearly 60% of the 1990-91 JCCC office careers program completers responding to the January 1992 follow-up study were working in related jobs; 12% were working in unrelated jobs, 12% were pursuing additional education, and the remainder were either unemployed or did not divulge their current status.*

*Approximately 63% of 1987-88 office careers program completers contacted in 1992 were employed in related jobs; 25% were working in unrelated jobs and the remainder were out of the labor force.*

*Note: Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.*

## *PARALEGAL*

*The number of job openings for paralegals is expected to increase significantly through the year 2005, but so will the number of persons pursuing this career. Thus, keen competition for jobs should continue as the growing number of graduates from paralegal training programs keeps pace with employment growth. Private law firms will continue to be the largest employers of paralegals, but a growing array of other organizations, such as corporate legal departments, insurance companies, real estate and title insurance firms, and banks will also hire paralegals. Although some paralegals may face layoffs during recessionary times, generally the continuous emergence of new laws and judicial interpretations of existing laws creates work for lawyers and paralegals without regard to the business cycle.*

### *Employment Information*

*Greater Kansas City Area: Paralegals held 447 jobs in the Greater Kansas City area in 1986. Approximately 890 jobs are projected through the year 2000 (+99.1%), with 63 average annual openings, including replacements, anticipated.*

*State: Approximately 460 paralegal personnel were employed in Kansas in 1986. Over 700 jobs are projected by 1995 (+54.3%), with 60 average annual openings, including replacements, anticipated.*

*National: About 90,000 paralegals held jobs in 1990, with 167,000 jobs projected by the year 2005 (+85.2%). Approximately 19,000 average annual openings, including replacements, are anticipated. Paralegals are listed among the fastest growing occupations to the year 2005.*

### *Salary Information*

*Greater Kansas City Area: Paralegal personnel employed in Johnson, Leavenworth, Miami or Wyandotte counties earned a median annual salary ranging from $24,877 to $28,600 in 1991.*

*State: Kansas paralegal personnel earned a median salary of $21,611 to $24,856 in 1991, the same range reported in 1989. The lowest reported earnings were less than $14,000, and the highest were more than $37,800.*

*National: Earnings of paralegals vary greatly. Salaries depend on the education, training, and experience the paralegal brings to the job, the type and size of employer, and the geographic location of the job.*

*Paralegals had an average annual salary of about $24,900 in 1991 according to a utilization and compensation survey by the National Association of Legal Assistants. Starting salaries averaged $20,900, while paralegals with from 3 to 5 years of experience averaged $24,200 a year. In addition to a salary, many paralegals received an annual bonus, which averaged $1,100 in 1991. Paralegal specialists hired by the federal government in 1991 started*

*at $17,000 to $21,000 a year, depending on their training and experience. The average annual salary of paralegals who worked for the federal government in 1990 was about $32,164.*

*JCCC Career Program Completers: A decline in the average annual salary of paralegal career program completers was noted in each of the past 3 years the short-term follow-up study was conducted. An average annual salary of $19,843 was reported by 1990-91 paralegal program completers responding to the January 1992 follow-up study who were working full-time in jobs related to the paralegal program, compared to $19,968 for 1991 respondents and $21,965 for 1990 respondents. Respondents employed in their current full-time related job one year or less reported an average salary of $18,970 in both 1992 and 1991 compared to $21,278 in 1990.*

*An average annual salary of $27,477 was reported by 1987-88 paralegal program completers working full time in related jobs who responded to the 4-year follow-up study conducted in 1992.*

*JCCC Placement Information*

*Approximately 60% of paralegal program completers responding to the January 1992 follow-up study were working in jobs related to their paralegal career preparation; 19% were employed in unrelated jobs, 7% were pursuing additional education, 5% were unemployed, and the remainder were either out of the labor force or did not disclose their current status.*

*Fifty-nine percent of 1987-88 paralegal program completers contacted in 1992 were employed in jobs related to the paralegal career program; 23% were working in unrelated jobs; 8% were pursuing additional education, 8% were unemployed, and 2% were out of the labor force.*

*Note: Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.*

## *PRINTING TECHNOLOGY*

*Employment of printing press operators is expected to grow about as fast as the average for all occupations through the year 2005 because of anticipated growth in the demand for printed materials. For example, new market research techniques are expected to lead advertisers to increase spending on messages targeted to specific audiences. This in turn will stimulate demand for a wide variety of newspaper inserts, catalogs, direct mail enclosures, and other kinds of print advertising.*

*Apprenticeship, once the dominant method of preparing for this occupation, is becoming less prevalent as formal programs of retraining and skill updating for experienced operators become more important. In the future, it is expected that workers will need to retrain several times during their career. Postsecondary education has become increasingly important because of the theoretical knowledge needed to operate advanced equipment. Persons entering the field will face keen competition for jobs from experienced workers and workers who have completed retraining programs.*

*The associate degree in printing is a cooperative program offered through the Johnson County Area Vocational-Technical School and Johnson County Community College.*

### *Employment Information*

*Greater Kansas City Area: Printing, binding, & related workers held 4,194 jobs in the Greater Kansas City area in 1986, with 5,490 jobs projected by the year 2000 (+30.9%). Approximately 229 average annual openings, including replacements, are anticipated.*

*State: About 3,810 workers were employed in printing, binding, & related occupations in Kansas in 1986, with 4,600 jobs projected by 1995 (+20.7%). Approximately 210 average annual openings, including replacements, are anticipated.*

*National: About 393,000 printing, binding & related workers held jobs nationwide in 1990, with 466,000 jobs projected by the year 2005 (+18.3%). Approximately 49,000 average annual openings, including replacements, are anticipated.*

### *Salary Information*

*Johnson County: Printing press machine operators and tenders in Johnson County earned an average hourly wage ranging from $7.96 to $9.15 in 1991.*

*Greater Kansas City Area: Printing press machine operators and tenders in Johnson, Leavenworth and Wyandotte counties earned an average hourly wage ranging from $9.49 to $10.91 in 1991.*

*State: Printing press machine operators and tenders in Kansas earned an average hourly wage ranging from $10.11 to $11.62 in 1991. The average hourly entry-level wage was $6.31 in 1991.*

*National: The basic wage for a press operator depends on the type of press being run and the area of the country in which the work is located. The median hourly wage for a full-time press operator was about $10.25 in 1990. The lowest 10% earned an average of $5.75 or less, and the highest 10% earned over $17.75 an hour.*

*A relatively small proportion of press operators are unionized. According to the Graphic Communications International Union, the principal union for press operators, average hourly earnings for a press operator were $18.38 in 1990.*

## *JCCC Salary and Employment Information*

*This program has not been offered at JCCC for a sufficient length of time to provide data from follow-up studies of JCCC career program completers.*

## *RADIOLOGIC TECHNOLOGY*

*Employment in the field of radiologic technology is expected to grow much faster than the average for all occupations through the year 2005 because of the vast clinical potential of diagnostic imaging and therapeutic technology. Current as well as new uses of imaging equipment are virtually certain to sharply increase demand for radiologic technologists.*

*Hospitals will remain the principal employer of radiologic technologists. However, employment is expected to grow most rapidly in offices and clinics of physicians, including diagnostic imaging centers. Technologists are even working on the road. In response to rural needs, radiologic technologists travel in large vans equipped with sophisticated diagnostic equipment, and this trend is likely to continue. Turnover is relatively high, especially in radiation therapy technology, because of the stress in treating patients who may be close to death.*

*Radiologic technology is a cooperative program between JCCC and Penn Valley Community College, with related courses taken at JCCC and lab and clinical courses held at PVCC or at a cooperating health facility.*

### *Employment Information*

*Greater Kansas City Area: Approximately 872 workers were employed as radiologic technologists and technicians in the Greater Kansas City area in 1986. Approximately 1,002 jobs are projected through the year 2000 (+14.9%), with 23 average annual openings, including replacements, anticipated.*

*State: Nearly 950 radiologic technologists and technicians were employed in Kansas in 1986. Approximately 1,000 radiologic jobs are projected by 1995 (+6.4%), with 20 average annual openings, including replacements, anticipated.*

*National: About 149,000 radiologic technologists and technicians were employed in 1990, with 252,000 jobs projected by the year 2005 (+69.5%). Approximately 25,000 average annual openings, including replacements, are anticipated. Radiologic technology is listed among the fastest growing occupations to the year 2005.*

### *Salary Information*

*Johnson County: Radiologic technicians earned a median annual salary of $23,026 in 1987. More recent area wage and salary information was not available.*

*National: Radiologic technologists working full-time in private hospitals averaged $26,520 a year in 1991, excluding premium pay for overtime and for work on weekends, holidays, and late shifts. According to the University of Texas Medical Branch survey of hospitals and medical schools, the median salary for radiation therapy technologists was $29,162 in 1990 with an average minimum of $24,699 and the average maximum of $35,811.*

*JCCC Salary and Placement Information*

*An average annual salary of $21,528 was reported by radiologic technology program completers responding to the January 1992 follow-up study of 1990-91 career program completers. All of the radiologic technology program completers responding to the 1992 follow-up study were employed in related jobs.*

*Respondents to the 3-year follow-up study of 1986-87 career program completers who were working full time in jobs related to radiologic technology reported an average annual wage of $23,150 in 1990. All respondents were working in jobs related to radiologic technology (100%).*

*Note: Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.*

## *RESPIRATORY THERAPY*

*Employment of respiratory therapists is expected to increase much faster than the average for all occupations through the year 2005 because of substantial growth of the middle-aged and elderly population, a development that is virtually certain to heighten the incidence of cardiopulmonary disease. Projected rapid growth in the number of patients with AIDS will also boost demand for respiratory care since lung disease so often accompanies AIDS.*

*Developments within the profession will affect the kinds of skills in greatest demand. Neonatal care and cardiopulmonary care have already emerged as distinct specialties, and opportunities appear to be highly favorable for respiratory therapists with the requisite skills.*

### *Employment Information*

*Greater Kansas City: Respiratory therapists held 507 jobs in the Greater Kansas City area in 1986. Approximately 604 jobs are projected through the year 2000 (+19.1%), with 8 average annual openings, including replacements, anticipated.*

*State: A total of 410 respiratory therapists were employed in Kansas in 1986. Approximately 460 respiratory therapy positions are projected by 1995 (+14.6%) with 10 average annual openings, including replacements, anticipated.*

*National: About 60,000 respiratory therapists were employed in 1990, with 91,000 jobs projected by the year 2005 (+52.1%). Approximately 8,000 average annual openings, including replacements, are anticipated. Respiratory therapists are listed among the fastest growing occupations to the year 2005.*

### *Salary Information*

*Greater Kansas City: A study conducted in June 1988 by the JCCC Office of Institutional Research resulted in responses from 39 area hospitals. This study indicated entry-level salaries for registered respiratory therapists averaged $18,998, and entry-level salaries for certified respiratory therapy technicians averaged $16,471 per year at hospitals within the Greater Kansas City area. More recent data were unavailable.*

*National: Respiratory therapists who work full-time in private hospitals averaged $26,208 a year in January 1991, excluding premium pay for overtime and for work on weekends, holidays, and late shifts. Average salaries ranged from $23,878 in Fort Worth to $37,482 in San Francisco.*

*JCCC Career Program Completers: An average annual salary of $20,800 was reported by respiratory therapy program completers working full time in jobs related to respiratory therapy who responded to the January 1992 follow-up study of 1990-91 career program completers.*

*An average annual salary of $25,979 was reported by 1986-87 respiratory therapy program completers working full time in jobs related to respiratory therapy who responded to the 3-year follow-up study conducted in 1990.*

*JCCC Placement Information*

*All of the respiratory therapy program completers who responded to recent follow-up studies were employed in jobs related to respiratory therapy.*

*Note: Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.*

## *SALES AND CUSTOMER RELATIONS*

*Employment of sales representatives is expected to increase about as fast as the average for all occupations through the year 2005. Although overall employment is expected to increase significantly, the outlook varies by industry and by type of sales job. Those entering this field should remember that sales are affected by changing economic conditions and consumer preferences. As a result, employment opportunities and earnings may fluctuate from year to year.*

*Individuals interested in pursuing a career in sales should be enthusiastic, outgoing, self-confident, disciplined, hard working, and able to communicate effectively. They should be able to inspire customer confidence and work with little or no supervision. Some companies give personality tests to prospective employees because personality attributes are so important in sales work. Earnings usually increase rapidly with experience, and opportunities for advancement are good for those possessing sales ability and leadership skills.*

### *Employment Information*

*Greater Kansas City Area: About 90,245 workers were employed in sales and related occupations in 1986 with 115,182 jobs projected by the year 2000 (+27.6%). Approximately 6,616 average annual openings, including replacements, are projected. Sales and related occupations are on the list of high growth occupations for the Greater Kansas City area through the year 2000.*

*State: About 109,150 workers were employed in sales and related occupations in 1986 with 127,800 jobs projected by 1995 (+17.1%). Approximately 5,480 average annual openings, including replacements, are projected.*

*National: Nearly 14,100,000 workers were employed in marketing and sales occupations in 1990, with 17,489,000 jobs projected by the year 2005 (+24.1%). One in four of these workers were employed part-time only, and 49% were female. Approximately 3,681,000 average annual openings, including replacements, are anticipated.*

### *Salary Information*

*Greater Kansas City Area: Median annual salaries of sales personnel in Johnson, Leavenworth and Wyandotte counties ranged from a low of $16,307 for advertising sales agents to a high of $50,107 for insurance agents or securities, commodities and financial services sales agents in 1992.*

*State: Median annual salaries of Kansas sales personnel in 1991 ranged from a low of $16,307 for advertising sales agents to a high of $50,107 for insurance or securities, commodities and financial services sales agents.*

*National: Compensation methods vary significantly by the type of firm and product sold. However, most employers use a combination of salary and*

*amount of sales, whereas bonuses may depend on individual performance, on the performance of all sales workers in the group or district, or on the company's performance.*

*Individuals involved in the sale of consumer goods averaged $23,297 as trainees, $37,882 as mid-level, and $63,355 as top-level workers. Individuals selling industrial goods averaged $28,455 as trainees, $39,614 as mid-level, and $54,573 as top-level workers. Service sales representatives averaged $22,506 as trainees, $35,082 as mid-level, and $56,764 as top-level workers. All of the above average annual salaries include base salary, commission, and bonuses.*

## JCCC Salary and Placement Information

*This program has not been offered at JCCC for a sufficient length of time to provide data from follow-up studies of JCCC career program completers.*

## *TURF MANAGEMENT*

*Employment of gardeners and groundskeepers (the closest occupational category for which data were available) is expected to increase much faster than the average for all occupations through the year 2005. Expected growth in the construction of commercial and industrial buildings, shopping malls, homes, and highways should stimulate demand for qualified workers. Growth in the number of parks, athletic fields, golf courses, cemeteries, and similar facilities also can be expected to add to the demand for these workers.*

*Job openings should be plentiful because the occupation is large and turnover is high. There are no national standards for gardeners and groundskeepers, but some states require certification for workers who use chemicals extensively. Generally, a gardener or groundskeeper can advance to supervisor after several years of progressively responsible experience. Supervisors may then advance to grounds manager or superintendent for a golf course or other facility. Many gardeners and groundskeepers become landscape contractors.*

### *Employment Information*

*Greater Kansas City Area: Gardeners and groundskeepers held 2,835 jobs in the Greater Kansas City area in 1986, with 3,726 jobs projected by the year 2000 (+31.4%). Approximately 246 average annual openings, including replacements, are anticipated.*

*State: About 4,840 jobs were held by gardeners and groundskeepers in 1986, with 5,760 jobs projected by 1995 (+19.2%). Approximately 530 average annual openings, including replacements, are anticipated.*

*National: Gardeners and groundskeepers held 874,000 jobs nationwide in 1990, with 1,222,000 jobs projected by the year 2005 (+39.8%). Approximately 345,000 average annual openings, including replacements, are anticipated. Nearly 27% of all gardeners and groundskeepers work part-time only, and less than 6% are female. Gardeners and groundskeepers are listed among the occupations with the largest projected numerical increases to the year 2005.*

### *Salary Information*

*Greater Kansas City Area: Gardeners and groundskeepers employed in Johnson, Leavenworth or Wyandotte counties earned an average hourly wage ranging from $7.69 to $8.84 in 1991.*

*State: Gardeners and groundskeepers in Kansas earned a median hourly wage ranging from $6.81 to $7.83 in 1991, and the average entry-level hourly wage was $5.49.*

*National: The median hourly wage of gardeners and groundskeepers was $6.75 in 1991; the middle 50% earned between $5.00 and $8.25, the lowest*

*10% earned less than $4.25, and the top 10% earned more than $11.25 an hour.*

*According to a survey conducted by Lawn Care Industry Magazine, those who worked for chemical lawn care firms averaged between $7.20 and $8.50 an hour in 1990. The Professional Grounds Management Society reported seasonal laborers averaged $6.10 an hour; permanent, year-round laborers, $7.33; and supervisors $9.40 in 1990. Managers, who generally had a 4-year degree, averaged $34,292 a year.*

*JCCC Salary and Placement Information*

*This program has not been offered at JCCC for a sufficient length of time to provide data from follow-up studies of JCCC career program completers.*

## *WELDING TECHNOLOGY*

***Little or no change in employment of welders, cutters, and welding machine operators is expected through the year 2005. Most job openings will result from the need to replace experienced workers who transfer to other occupations or leave the labor force. In certain industries--construction, wholesale trade, and repair services, for example--employment of welders and cutters will grow. The level of construction is expected to expand, as is the number of metal products needing repair, increasing the need for welding and cutting. This work is generally less routine and more difficult to automate than other welding jobs. Despite the welding jobs eliminated by robot welding systems, manual welders will still be needed for the maintenance, repair, and other work in manufacturing that cannot be automated.***

***The associate degree in welding is a cooperative program offered through the Johnson County Area Vocational-Technical School and Johnson County Community College.***

### *Employment Information*

*Greater Kansas City Area: Metal fabricating setters and operators (the closest occupational category for which data were available) held 1,406 jobs in the Greater Kansas City area in 1986. Approximately 1,371 jobs are projected by the year 2000 (-2.5%), with 31 average annual openings, including replacements, anticipated.*

*State: Approximately 4,460 welders and flame cutters were employed in Kansas in 1986. Nearly 4,900 welding jobs are projected by 1995 (+9.9%) with 140 average annual openings, including replacements, anticipated. Structural metal workers held 570 jobs in 1986, with 640 jobs projected by 1995 and 20 average annual openings, including replacements, expected.*

*National: Welders and cutters machine operators, setters, and hand workers held 427,000 jobs in 1990, with 445,000 jobs projected by the year 2005 (+4.3%). Approximately 51,000 average annual openings, including replacements, are projected.*

### *Salary Information*

*Greater Kansas City Area: Welders in the Greater Kansas City area earned an average entry-level wage of $7.60 an hour in 1992. Welders and cutters in Johnson, Leavenworth, Miami and Wyandotte counties earned a median hourly wage of $10.39 to $11.95 in 1991. The lowest reported wage was less than $5.12 and the highest was more than $15.80.*

*State: Metal fabricators (structural metal products) and welders and cutters in Kansas earned a median hourly wage of $9.03 to 10.38 in 1991. Median entry-level hourly wage was $6.50.*

*National: Median hourly wage for welders and welding machine operators was about $10.63 in 1990. The top 10% earned more than $17.50, and the lowest 10% earned less than $6.25 per hour.*

*JCCC Salary and Placement Information*

*This program has not been offered at JCCC for a sufficient length of time to provide data from follow-up studies of JCCC career program completers.*

## *OTHER JCCC CAREER PROGRAMS FOR WHICH MINIMAL OUTLOOK DATA WERE AVAILABLE*

### *Business Entrepreneurship*

*JCCC's business entrepreneurship program teaches the fundamentals of starting and operating a business. Coursework covers preparing a business plan, obtaining financing, planning advertising and sales promotions, marketing a product or service and developing an accurate accounting system. Entrepreneurs who already have their business established can strengthen their managerial and business skills through this course of study.*

*The business entrepreneurship program has not been offered at JCCC for a sufficient length of time to provide data from follow-up studies of JCCC career program completers.*

### *Industrial Programmable Controls*

*The industrial programmable controls program was developed to meet the needs of manufacturing, business and industry for workers skilled in sequencing operations by means of microprocessor-based equipment rather than through the use of electrical wiring, motors, belts, etc. The industrial programmable controls certificate was designed for electricians, electronics technicians, engineers, maintenance personnel and others involved in industrial processes. The courses teach programming for relay logic, timers, counters, block transfer, analog and networking.*

*The program has not been offered at JCCC for a sufficient length of time to provide data from follow-up studies of JCCC career program completers.*

### *Interpreter Training*

*JCCC's interpreter training program concentrates on developing skills in American Sign Language, deaf culture and fingerspelling interpretation. As the population grows, so will the number of people with hearing problems and the need for interpreters.*

*All of the respondents to the 4-year follow-up study and 84% of respondents to the 1-year follow-up conducted in 1992 were working in jobs related to interpreter training. Respondents reported average hourly wages of $10.02 and $10.42, respectively.*

### *Veterinary Technology*

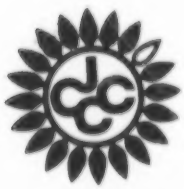
*A background in veterinary technology leads to employment opportunities in laboratory care and pharmaceutical animal colonies, or assisting a veterinarian in providing professional services and performing office routines. Students study sanitation and animal care, the preparation of animals for surgery, and anesthetic management. They also perform lab work and use radiologic techniques. Jobs in the field are plentiful. Dr. Roger L. Lukens states in the May 1990 Veterinary*

## *OTHER JCCC CAREER PROGRAMS FOR WHICH MINIMAL OUTLOOK DATA WERE AVAILABLE*

*Forum, "the increasing demand for veterinary technicians and the decreasing number of applicants (to veterinary technology programs) are creating . . . a critical manpower problem for the profession."*

*All of the respondents to the 1992 follow-up studies of 1990-91 completers (short-term follow-up) and of 1987-88 completers (long-term follow-up) were working in jobs related to their program. Average hourly wages reported by respondents were $8.10 and $9.50, respectively.*

*Note: Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.*



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